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Just a Reminder – Lest We Forget

IN THIS DAY OF ACHIEVEMENT it is pardonable to overlook the accomplishments of the yester year but when reminded of something big which thrilled us at the time we pause to contemplate. All of which leads to the thought that Remington Palma .22 Long Rifle cartridges did some great shooting at the Eastern Small Bore Matches at Sea Girt last July.

The great work of Grove Wotkyns, Harold Wood, Ted Everett, Roy Bowlin, and Ralph McGarity with Remington Palma ammunition cannot be passed over lightly. Representing as they do the best of the small bore shooters in the East it is with just pride that we refer to their wonderful shooting with Palma ammunition.

Last Year's Sea Girt Records

PRELIMINARY PALMA

1. H. J. Wood, Bridgeport, Conn.
   Score 225, 30 V's

PALMA INDIVIDUAL MATCH

1. H. J. Wood, Bridgeport, Conn.
   Score 223

EASTERN TWO MAN TEAM MATCH

1. Capt.G.L.Wotkyns, U.S.A., Springfield,Mass.
   Mr. R. H. McGarity, Washington, D. C.
   Score 592 (a new record)

EASTERN SMALL BORE TEAM MATCH

1. National Capital Rifle Club* Washington,D.C.
   Score 973

*One half the team shot Palma.

EASTERN SMALL BORE CHAMPIONSHIP

1. L. Theo. Everett, Mahwah, N. J.
   Score 246

INDIVIDUAL GRAND AGGREGATE

1. Mr. John W. Hession, New York City
   Score 564 (a new record)
2. Mr. L. Theo. Everett, Mahwah, N. J.
   Score 564 (a new record)

200-YARD RE-ENTRY

1. Capt. Roy L. Bowlin, U. S. A.
   Score 150, 26 V's

100-YARD RE-ENTRY AGGREGATE

1. R. H. McGarity, Washington, D. C.
   Score 982

1925

N. R. A. INDOOR GALLERY CHAMPION
A. E. Hart, Cleveland, O. Score 593 x 600

REMINGTON UMC

REMINGTON PALMA

THE ACCURACY CARTRIDGE

REMINGTON UMC

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Getting Ready for Sea Girt

By Frank J. Kahrs

JUST as every small boy looks forward to the Fourth of July, so every small borer now keeps an eye on the calendar for it means that when July arrives he must prepare to spend the Fourth at Sea Girt. The Eastern Small Bore Championships in July have become a fixture at Sea Girt and each year finds the cream of the small bore shooting clan assembled for five days of intensely interesting and exciting rifle shooting competition.

The program committee in charge of the 1925 competition has just completed the program for this year and while these will not be ready for distribution until May, it is possible to give an advance story in this issue of THE RIFLEMAN.

Each year the Sea Girt management tries to put on some special feature or tries out some innovation to make these competitions just that much more interesting and so as a feature this year, the committee presents the Eastern Zone Matches, Junior Division of the Winchester Junior Rifle Corps, in charge, however, of Mr. W. B. Russell, National Executive. While these Junior competitions will not, strictly speaking, be part of the big show, they will be held at the same time and on the same range but under the direction of the W. J. R. C. officials. The plan is to bring the boys to Sea Girt at the time the big shoot is held so that they may absorb some of the details of small bore shooting as it is played by the big boys. So much for the innovation.

Generally speaking, there have been no radical changes made in the conduct of the matches or the conditions under which the Eastern Championships will be held this year. The classification system which met with such general approval last year, will be used again and it is confidently expected that a large attendance of Class C men or new shooters will result.

On the first day, Wednesday, July 1st, the program is given over entirely to re-entry matches. This affords the competitors an opportunity to get sighted in and familiar with the range and conditions as well as to work off any possible nervousness resulting from being a participant in a big competition.

Heretofore the re-entry matches at Sea Girt have been limited but this year they will be unlimited. This means that previously a shooter might purchase only a certain number of targets, the number being ten. This year, however, he may enter as often as he desires or thinks he has a chance to better his score.

Specifically, the 50-Yard Re-Entry counts the five best targets, all ties to divide, the V count not to be used.

The 100 Yard Re-Entry counts the three best targets, all ties to divide, the V count not to be used.

The 200 Yard Re-Entry counts the five best targets, but in this case the V count is used.

The Moose Match at 50 yards Rapid Fire remains the same and the Swiss Unlimited Re-Entry is again included in the program.

The Re-Entry Matches will be open throughout the shoot but only at such times as the different ranges are not used for squadded individual or team matches. The facilities, however, usually provide ample opportunity for all competitors to shoot as many re-entries as desired.

The first day of the squadded matches is Thursday, July 2nd, and on this day the Eastern Small Bore Individual Championship is scheduled to begin at 9 o'clock in the morning. This event is shot at 50, 100 and 200 yards and will be finished in the morning. In the afternoon the Eastern Small Bore Team Championship at the same distances will begin at 2 o'clock, and this will be finished in the afternoon.

On the third day, Friday, July 3d, the Palma Small Bore Individual Match at 150- 175 and 200 yards begins at 8 o'clock in the morning and it takes all morning to shoot this match. This is the small bore event which simulates the big bore Palma Match, as each competitor fires two sighters and fifteen shots for record at each of the distances mentioned. The Palma Small Bore Team Match, at the same distances as the Individual Match, begins at 2 o'clock in the afternoon and it takes all afternoon to finish this match.

On the fourth day, Saturday, July 4th, the Eastern Two Man Team Match begins at 10:30 in the morning. The 200 yard stage of this match begins at 1 o'clock in the afternoon and is followed by the Spencer Match, a 20-shot Individual competition at 200 yards, at 2 o'clock. The Camp Perry Special at 50 and 100 yards and shot under Dewar international conditions is scheduled for 3 o'clock and as this is an iron sight match, the shooters will appreciate the fact that it is placed as late as possible on the program in order to get the advantage of light and other conditions obtaining at that time of the day for those who shoot the iron sights.

On Sunday, July 5th, the last day of the shoot the entire morning is devoted to re-entry matches in order to give all competitors who might possibly not have had a chance to compete as much as they would like in the (*Continued on page 21*)

Bullet Experience on Big Game

By Elmer Keith

A STRANGER rides into camp. This is Elmer Keith's first attempt in public print. He is a typical young rancher and cowman, about 24 years old, born and raised in the Rockies, the way I was thirty years before his time. I have known Keith for about five years, and know that what he says is accurate. His experience and knowledge is more of the Outdoors than of books. He is one of the best shots in the Hills today, and was on the Camp Perry team from Montana last year. He has won several championships for broncho busting, and is as good a rider as he is a shot with both rifle and six-gun, especially with the rifle. I have been trying to get him to allow me to publish some of his letters to me; but through lack of confidence, and the modesty and silence which seems natural to Hill men, even to bashfulness, he has held back. But I finally have his consent to venture at least one of these letters. This is only one of them, which in itself reveals actual hunting experience more than 99 x 100 city hunters can ever hope to have. The details he gives can be depended on.

CHAUNCEY THOMAS.

Dear C. T.: French, Idaho.

Received your letters all O. K. Am back on the ranch again this time with the cattle. Keeps me busy now, between cooking my own meals and riding herd on these critters, also playing nurse for a lot of them. Good weather for calves now though, except a bit windy and cold. Got letter and bullets at French too. Address me at French now.

Thanks for editing and starting that letter along. You must have had quite a bit of work on it. I know less than nothing about such things or writing either. Wish I were able to make a little money writing but believe it would take me another 50 years. However, if any time I write you a letter that contains anything you think worth printing, why O. K. with me, and will be glad to pay you for trouble editing it, busted now. Sold a Sharps .40-90 B. N., 16 pounds, for $50.00 last month, new condition. The one I sent you 50 yard target from.

Have absorbed what you wrote about changing sights after two shots. It shows up even more at 1,000 yards. One never knows which part of his normal group those two shots are. On the military target where one has never more than two sights and at Perry in most matches none at all. I've gotten the habit of just correcting for half the distance I am out from center on first sighter. Thus, if I had a 4 at 3 o'clock, I just move sights over half the distance to center, so if that shot happens to be on the right edge of my normal group than the next one will probably be in black.

I sometimes think it better to use both one's sighters without a change, then correct. But then two even not enough to tell position of one's group. And unless you get centered, even a fine group the size of bull or smaller won't get you anywhere in a match. You know how it goes. Lieutenant Siler, I think it was, wrote a fine article on this very thing about a year ago in THE AMERICAN RIFLEMAN. By the way Siler told me to tell you he hoped to meet you some day.

Have seen it at long range, at Perry especially when conditions appear normal, no wind and scope shows no mirage and yet you need one to three points windage. Maybe light or some atmospheric condition it worked out the same all along the firing line so not due to canting by one individual.

Thanks for dope on group. I never thought of groups as saucer or cinch ring but it is all right and makes it easier to understand and to correct for. No wonder one misses coyotes sometimes. Missed a big eagle 150 yards the other day. Don't know yet what was wrong, held dead center in middle of breast, never ruffled a feather. Would have sworn I could have hit his head. Have shot rabbits through head that far with this free rifle and green wing teal only one inch out of water at 200 yards.

Have a set Belding & Mull .30-06 calibrated mounts for Winchester scope. Like the rear mount but not the way it is arranged to keep scope from rotating. My brother is on his way to Montana. Will soon have my .30 loading tools here. Had letter from Omeara, has been about half sick with grippe. Got a .40-90 str. 3-inch everlasting shell Sharps rifle 11 to 12 pounds, 30 inch round barrel, fine shape but shells stick tight, as if glued after firing. Accurate, too fancy, but can't get shells in and out gun very easy. Maybe chambered too straight or shells being thick and after being fired many times are so strong they won't spring or give any. May swap off or get Omeara to put on a heavy .45 barrel.

Have been shooting a .44 cap and ball Navy Colt—really .45. Loaded with 40 grains black, a felt wad saturated with tallow and let harden. Wad out of an old hat and round ball on top. It shoots about the same as any big six gun, very accurate, and cheap too.

My first six gun was a Colt Police Positive target .32. It was wonderfully accurate little gun but no killing power. Would not kill pine squirrels unless hit in heart or shoulders, or head. Next I tackled one of the old Derringer stock .38 Colt's lighting double actions. Was a better gun than the .32 but not as accurate. Then when I was 14 or 15 years old bought a new .32-20 S. A. Army 7½ inch for $15.50. out of gun store. This gun did the trick. I killed an awful lot of small game with it. For three years I kept record of grouse. I got 129 birds with this gun alone. Also many rabbits, hawks, an eagle and several coyotes off horse.

One day I had chance to try it on venison at about 40 yards, 2 year old blacktail doe. Shot out of back seat of Ford top down. Gun in both hands. Landed first shot in right shoulder, breaking it. Was using .32 Winchester soft nose, low velocity. Next three shots all landed in 4 inch of first one, on or behind shoulder as deer staggered around first on one side of road then on other. Then deer got started up hill at a poor gait. Fifth shot hit a limb and missed, sixth one broke back, loaded up and shot through head.

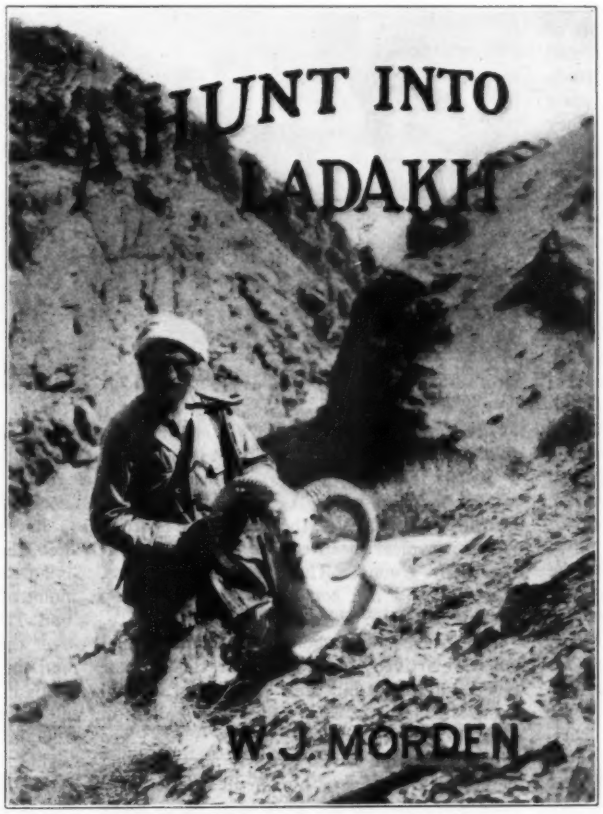
Killed my next deer a very big old blacktail at about 60 yards, running around steep hill above me with same gun and load. First shot struck belly about where I split open afterwards and angled upward through paunch. Deer humped up and turned down hill past me about 40 yards. Held under nose and next shot broke neck. Both bullets went clear through and out the deer.

Afterwards killed a yearling blacktail at around 100 yards with same gun. First shot struck a lodge pole pine and did not hit deer. Could just see part of deer through trees. Next one went through paunch and lung cavity. Trailed deer about one mile and found it dead. This is still a fine accurate six gun although badly scarred from many years in mountains and on broncs. Have since fitted it with 5½ inch barrel. I always use both hands on six gun when after meat unless shooting off horse or running a coyote. Have gotten fine results with this gun with a 113 grain (about) Ideal pointed bullet, and 3½ grains bull's-eye, although this load too heavy for anything but a S. A. Colt, or maybe modern heat treated S. & W. Have used as much as 4 grains in this gun but swelled shells badly and pierced primers. Finally had heads blown off shells so went back to 3½ grain ball.

One thing I never understood was why this gun with Winchester soft nose would expand or mushroom bullets perfectly in a deer, jackets bust and split, and when fired in hard dry pine the soft point would smear off leaving jacket part of bullet in almost original condition.

I once killed a mountain goat when still a small kid with .45 Colt S. A. Army, 5½ inch and Remington black powder loads, 38 grains black and 250 grains lead. Got first shot at 40 paces as goat was going around side hill. Made a near center hit on goat's west end as he was going east. Bullet traveled full length of body broke left shoulder and lodged under hide on neck, point battered a little. The old Billy turned up the hill in high gear, next shot hit a granite boulder that got between the goat and me just as I squeezed trigger. Third shot hit back of (*Continued on page 20*)

A HUNT INTO LADAKH



Title cut shows sharpoo with very fair head killed by Mr. Morden. At the bottom of page is shown pony transport packed for the trail into Ladakh, also Changpa Camp with their peculiar tents of goat hair cloth.

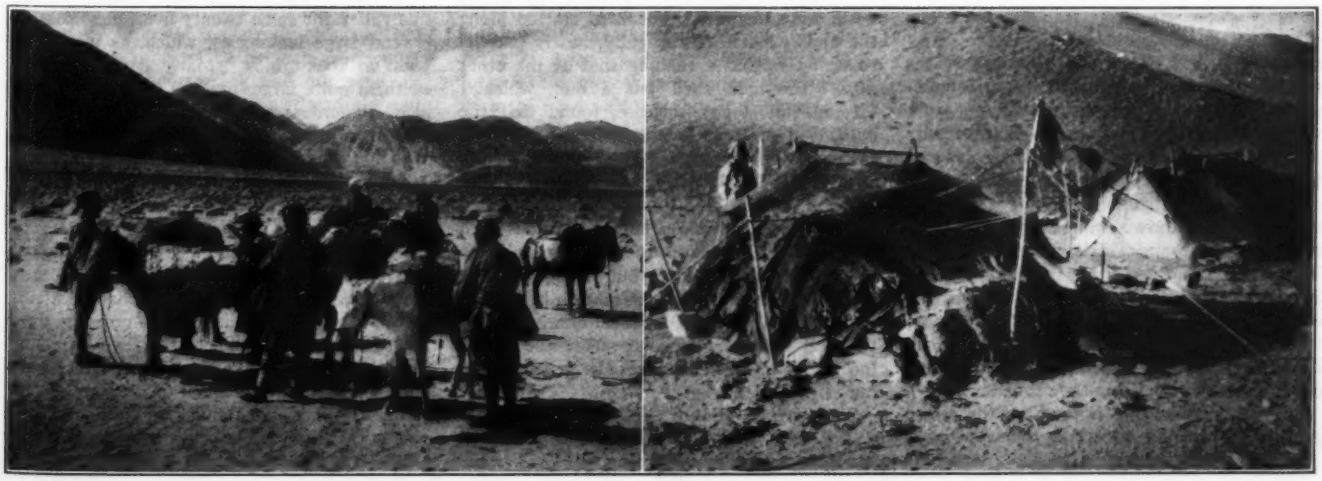
INSIDE the main Himalayan Range and east of the Vale of Kashmir lies the high country of Ladakh. It was, for many years, part of the Tibetan Empire and is still often referred to as Western Tibet. Here the mountains are less rugged than farther west but the average altitude is considerably greater. One's camps vary from about 11,000 feet to over 17,000 feet. The whole of Ladakh is most desolate, even more so than Baltistan to the westward. Desert valleys and barren hills make up the landscape, broken now and then by a tiny patch of green near some little village. In Changchenmo to the north, where Tibetan antelope are found, and in most parts of Rupshu to the south, where one goes for ovis ammon hodgsoni, there are no permanent inhabitants. A few wandering bands of nomads are the only people met in these districts. The *changpas*, as they are called in Ladakhi, come over from Chinese Tibet during the summer to pasture their sheep and goats on the dry desert grass. They evaporate the water of several salt lakes, taking the coarse product into Leh, where they trade it for wheat and barley. This salt is packed on sheep, ten to twenty pounds on each. Changpa camps are sometimes of considerable size and are interesting. They make their tents of goat hair cloth, though the hair of domesticated yaks is used to some extent.

Ladakhis are noticeably mongolian in type. They are very like the people of Chinese Tibet in language, customs and religion. The men wear long pig-tails, composed of their own hair with a small amount of wool added. Their clothing is of home-spun wool, usually grey, and consists of a long coat, belted at the waist and worn over loose woolen trousers. In cold weather a *pushteen* or sheepskin coat is added. The head covering is a close fitting fleece lined cap, with long ear-tabs that are left flapping in warm weather. Unlike the Baltis, these people seldom go barefooted, but wear loose cloth topped boots that have raw-hide soles. Women wear dark clothing, not unlike that of the men in cut. But the most striking part of the Ladakhi woman's outfit, however, is a flat head-dress, to which many large turquoises are sewn. These head-gears, called *payraks*, are the dowries of the young women, and are added to year by year. Some of them are quite huge and undoubtedly represent a considerable value. The women wear flaring ear pieces of black curly wool, giving them a queer, wide faced appearance. A peculiar custom in Ladakh is that of polyandry, where a woman has more than one husband. I was told that when a girl marries, the husband's younger brothers become secondary husbands, though the wife may refuse them if she chooses. The wife is the head of the family and if the principal husband dies, the widow may divorce the others by simply tying a string from her finger to theirs and cutting it. That the custom of polyandry leads to some amazing family trees, there can be no doubt. As a gentleman I met in Leh said, "If you ask a Ladakhi who his father is, he will give you a string of names."

The Ladakhis are all Lamaists, their religion being a corrupt form of Buddhism. The head of the religion is the Delai Lama in Lhassa. There are many lamaseries, always perched on the top of some dizzy height. One frequently meets lamas, wearing the red robes of their order. Every house has its prayer flags and shrines, or *chortens*, are common sights, as are prayer-wheels, where the faithful may acquire merit by giving a twist to the contrivance.

The usual route into Ladakh is via the Zoji La and the "Treaty Road" to Leh, normally sixteen marches from Srinagar. The way I took is a little longer and somewhat more difficult, as it involves the crossing of the Bhot Khol, a 14,200 foot pass. The altitude, in itself, is not great, but the approach to and descent from the summit are both over glaciers. This part is all foot work. We made the crossing and continued on to Suru in one day, a total of twenty miles. It was a long day for the coolies but they finished strong, a really remarkable feat.

The "Treaty Road," so called because of a proviso in regard to it in the treaty between the Government of India and Kashmir State, is a wide and well made pony trail. Much of the trade from China, Tibet and Central



Asia comes down over this route to Kashmir and India, and one meets many caravans of ponies and yaks along the way. The trail passes through numerous villages, little oases in the rocky desolation. Like the Baltis, these people are excellent irrigation engineers. They have to be, for it is only where the presence of a reliable water supply, such as springs or snow fields on the mountains, enables them to irrigate, that living is possible. Much of the country looks like parts of New Mexico, and Ladakhi villages are not unlike Navajo pueblos.

At Lamayuru, twelve marches from Srinagar, there is a large monastery, high on a cliff above the village. There I left the main trail, as my sharpoo block lay to the southward. Part of the time we marched through a country that reminded me of the Bad Lands of Dakota. In another locality the predominating color of the landscape was red. It looked like red hematite, though whether or not the color is due to deposits of iron, I did not learn.

For several days we hunted sharpoo on the hills, but though we saw several, there were no good heads among them. Rahim Joo, my shikari, knew of another place in the block, where he said he had had luck the previous year. To get to this locality required two days, over some of the most amazing going I have ever struck. One bit, down the Zanskar River, was particularly interesting. Fortunately, we were able to obtain a local guide, as there was no trail for much of the way. We

Tibetan antelope or chiru, Changchenmo.

climbed up and down cliffs, crossed places where a dislodged pebble fell sheer for hundreds of feet, crouched under a low cut-bank while a slide of rock just missed us, and finally arrived at our destination, a bit frazzled but hopeful.

Sharpoo (ovis vignei), or *oorial*, as they are called in India, have a wide range. They are found in Astor and Gilgit, Ladakh, Chinese Tibet and even down to the Punjab Salt Range. Their horns are distinctive. Starting close together at the head, the horns diverge backward and form nearly a complete circle. I never saw any that actually made a complete circle but understand that they have been seen.

In summer the color is fawn on the upper part, the limbs and underbody being whitish,

Ladakhi wearing *pushteen*, as sheepskin coat is called. Ladakhi villagers with village headman. Ladakhi villager.

as are the rump and tail. In winter the upper part is said to be a light grayish brown. There is a dark ruff, containing some white hairs, around the base of the neck. My specimens measured 32 inches at the shoulder. Sharpoo frequent typical sheep country, open and rolling rocky ground. They are good climbers, however, and are sometimes seen on steep broken mountain sides.

Our coolies were about three hours behind when we arrived, as the trip down the Zanskar had been rough and hot. We found a good camp-site near a tiny habitation, called in Ladakhi, *Umlung Gongma*, or "A Place Where One Man Lives." Early next morning news came in that a bunch of sharpoo had been seen, low on the hills some three miles down the Indus. We at once started, but by the time we arrived they had moved back, further up on the mountain and away from the river. We worked our way up and were finally rewarded by seeing ten sharpoo on an open bench across a nullah, among the lot being two fair rams.

There was no cover, so we sat down to watch them. At last, as the shadows were lengthening, the animals arose and began to work slowly upwards. It was a question whether we could close up on them before dark, but after a stiff climb we topped a ridge and found ourselves within about 75 yards of the animals, which were across a deep gully from us. The two good rams were feeding above the others. My first shot was through the shoulder of the higher one, and rolled him down the mountain. The herd started along the opposite side of the gully, nearly parallel to us. I missed a running shot at the other ram. The next shell was a dud, which I ejected and to my surprise, found that the bullet had stuck in the throat of the chamber, fortunately preventing the bolt closing on the next shell. That finished the shooting for the day, of course. I can not explain what had happened. I had had a number of duds with this ammunition, both in Kashmir and the previous year in Africa, but never anything like this. The miss-fires seemed to have been caused by variations in case dimensions at the neck, allowing some to enter the throat too far, as in these instances the primers were but slightly dented.

The sharpoo we took back to camp. It was a fair head, 25½ inches around the curl. Three days later I got another and slightly better one, though not without some hard work. We saw several other lots but none having better heads.

By double marching we were able to reach Leh, the capital of Ladakh, in two days. Leh is an exceedingly interesting city, the meeting point of the routes to India from Central Asia and Tibet. All the commerce coming down over the Karakoram from Kashgar and China and the caravans from Lhassa discharge their loads in Leh, from which place they are taken on down to Kashmir. The caravan serai and the long bazaar street present interesting sights. Wild looking tartars from Central Asia, Tibetans in their *pushteens* and boots, lamas wearing red robes and caps, Ladakhis, Indians, now and then a Balti with his luxurious beard and bobbed hair, mixed with shaggy hill ponies, larger Yarkandi horses and huge hairy yaks, the whole scene dominated by the old King's Palace and Monastery perched high above on the mountain side, make a scene that for weirdness is hard to equal.

In Leh I outfitted my permanent staff with *pushteens*, coats of sheepskins, fleece side in, and warm caps, as the high country we were headed toward is cold and windy, even in summer. The pushteen is not beautiful but is a very useful article. It is practically the only garment, locally obtainable, that will keep out the cutting wind which constantly blows across the desolate wastes of Changchenmo and Rupshu.

The route to Changchenmo follows the Indus valley for some twenty-five miles, passing several large lamaseries, which, as usual, are high on rocky hills. Many *chortens*, some of them quite large, line the trail. There are also numerous *mani-walls*, long, low, flat-topped structures of earth and rock, overlaid with flat stones on which prayers are carved. *Mani* means prayer in Tibetan. The natives always pass to the left of *chortens and mani-walls*, thereby acquiring merit. To pass to the right is supposed to un-say all the prayers.

After leaving the Indus, the trail ascends gradually to the foot of the Charg La, an 18,000 foot pass. Ordinarily the crossing, during summer, is not difficult, but we were unfortunate in striking a blizzard near the summit. The gale howled about us, the snow froze to our clothing, and though we slowly thawed out on the down grade below snow line, it was

Yaks packed for transport through Changchenmo.

a stiff day's work. Most of my men came through well, although one or two had a touch of mountain sickness near the top. The pack animals, ponies and yaks, did well.

Beyond Tankse, transport is entirely by yaks. These big, shaggy, domesticated wild cattle are amazing brutes. They are packed much like ponies, the packs being hung over tiny wooden saddles. No hitch is used. As yaks will not lead and are constantly trying to push each other off the narrow trail, they are rather hard on equipment. They are slower than ponies but can live where the latter would starve. In some parts of the Karakoram region, the changpa method of using packed sheep for transport has been tried with success by explorers. All transport must be taken to Changchenmo and retained until the return, as there are no habitations in that barren region. The trail passes the western end of Pangong Lake, a body of brackish water in a wildly beautiful setting. Its eastern end is in Tibet. The trail also crosses the Marsimik La, 18,400 feet, but a very easy pass.

Changchenmo, meaning "Big North," is a high desert valley running approximately east and west about sixty miles to the frontier of Chinese Tibet. It is the only region, now available, where the chiru or Tibetan antelope is found. It is not a pleasant country, being a sandy waste in which nothing grows but a stunted shrub, something like our sage, but smaller. That and yak dung form the only fuel. The yak dung, where it can be found, is quite satisfactory, giving a fairly hot fire with little smoke. Needless to say, however, one does not have large camp fires in that country.

The altitude of the valley, through which runs the Changchenmo River, averages about 15,500 feet. The mountains nearby are not snow covered in the early fall, but beyond them are ranges of snow peaks, extending as far as one can see. In Changchenmo we saw numbers of *kiang* or wild ass. They were not timid but exhibited great curiosity, often following us for some distance, now and then uttering a sort of sneeze. Their coloring is yellow on top, with white under-body, legs and throat. At a distance this gives them a peculiar effect, making the heads look small and the necks long and thin, a striking bit of natural camouflage. A big stallion will stand about sixteen hands at the shoulders. They are not considered game and are of absolutely no use, being considered vermin.

I saw evidences that *ovis ammon hodgsoni* had once been native to the hills about Changchenmo, as I found many old heads. But though we spent some time searching the country, we saw none alive. They are evidently now extinct there, although near the Pangong Lake we saw several bunches of ewes and small rams. Burrhel (ovis nahura) are found to the south of Changchenmo. Wolves are fairly common but seldom seen.

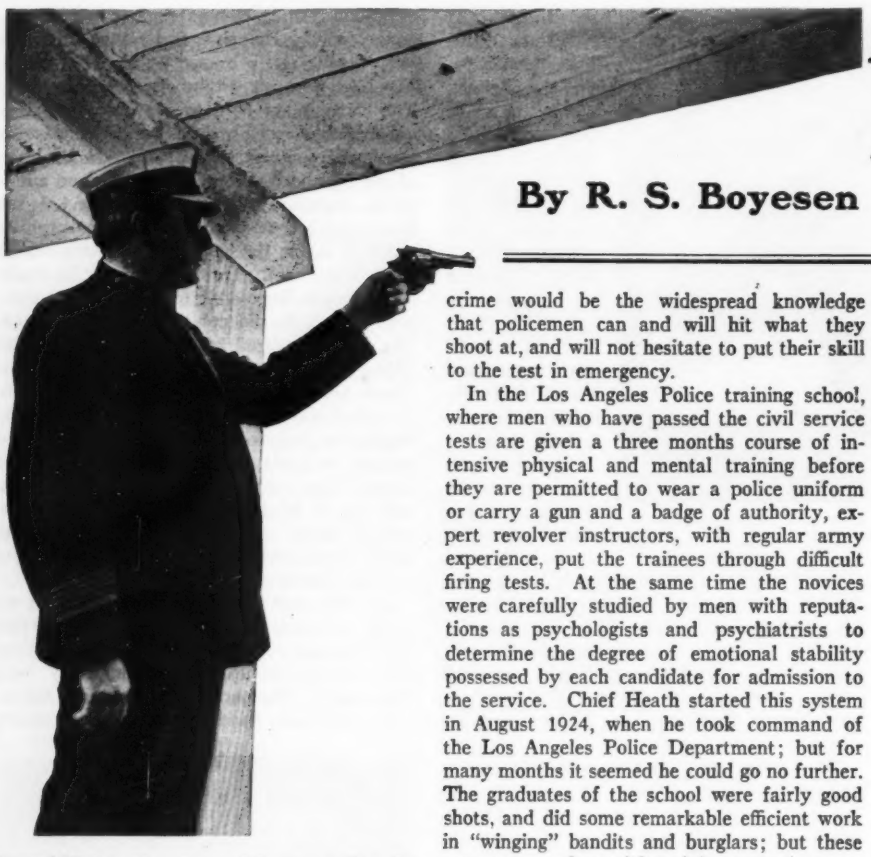
The chiru or Tibetan antelope ranges throughout Greater Tibet. They do not seem to come down to the western end of Changchenmo, but we began to see them on the second day after entering the valley. They are a pale fawn color, looking rather grayish at a distance. The face is dark brown and a dark streak runs down the front of each leg. Females are lighter in color and are hornless. The bucks' horns are long and thin, tapering to sharp points that are bent slightly forward, and look somewhat like those of the Grant's gazelle of East Africa. The chiru has a lump or puff just behind each nostril, which give the face a peculiarly heavy appearance. There is a deep pocket under the pit of each leg. These pockets are said to be the exits of glands, though I could find no evidences of this. They are rather solitary animals in summer and we seldom saw more than two or three together. I have read that the sexes live apart during warm weather, but on several occasions I saw males and females in the same lot. Their gate is a peculiar slinking trot, with the head held low, but if frightened they gallop or run, and can cover ground rapidly. Chiru frequent open valleys and flat sandy bottoms, where they dig holes deep enough to conceal themselves. While riding along we often saw an antelope appear suddenly, from nowhere, as it seemed. He would dash off and disappear as suddenly as he had come into view. A closer examination showed that he had dropped in another "funk-hole." I once watched the whole thing from an elevation. The chiru, startled by our pack-train popped up from one of these holes, dashed across the front of the outfit and slid, in a cloud of dust, into another hole, where he lay curled up with only the tips of his horns showing.

Stalking the Tibetan antelope is not difficult, as the country, though at first glance appearing very flat, is really broken by shallow gullies. My kills were all within one hundred yards. The chiru is not hard to put down but does not make a very clear target, as he blends with the background of sandy plain. In the case of my best head, I saw the animal from a distance, traveling slowly towards me. I sat down and he approached within seventy-five yards of where the shikari and I were seated under a low bank. How much closer he would have come is impossible to say, but up to the time I fired, he did not suspect our presence. The head measured 24½ inches in length by 13¼ inches spread, a very fair specimen. Three antelope are allowed to each license. I slipped over a few miles into Chinese Tibet, hoping to find some big heads there. The country was very like much of Ladakh and though I saw a few antelope, there were no extra good heads among them. I also saw several kiang and a wolf in Tibet. At the latter I had several long range running shots but was unable to stop him.

On the way out from Changshemmo we spent a couple of days looking for burrhel (ovis nahura). These "wild blue sheep," as they are sometimes called, are fairly well distributed. They are found in eastern Baltistan, in northern Ladakh and in Rupshu to the

Burrhel or blue sheep of Ladakhi.

south. Burrhel are said to be nearly as much goat as sheep, though in appearance and habits they favor the latter. They live in typical sheep country but are good climbers and are very fast. When lying among rocks, their color, which is gray above, makes them difficult to locate. The horns, which lack the ridges of the true sheep, are peculiar in that they turn backward along the sides of the neck. The average height at shoulder is said to be 35 inches, though my largest, a heavy bodied old ram, measured but 32½ inches. His horns were 23½ inches, not an exceptionally big head but a very fair one for these days and that district. The hunt was unexciting, except for a long and rather steep decent down to a vantage point above the flock. The range was approximately seventy-five yards and my first shot breaking the shoulder, anchored (*Continued on page 18*)



A Police Department That "Joined"

By R. S. Boyesen

THIS is the story of how a police department that had no shooting range of its own, that had only one revolver team for exhibition and contest work and that had no way of making its members spend hard-earned money on ammunition, suddenly jumped to the front with a record-breaking membership in the National Rifle Association built a great target range and formed twenty or more revolver teams. The tale might be classed as "interesting fiction" were it not for the fact that nearly one thousand individual applications for annual membership in the N. R. A. are now en route to headquarters, with all the money paid in and with a mighty good prospect that at least two thousand of the twenty-five hundred members of the department will be members within the next month.

The records of the Los Angeles Police Department, and the voluminous correspondence files prove that it was Capt. E. C. Crossman, firearms expert and energetic N. R. A. member, who suddenly started things moving and made Chief of Police R. Lee Heath's "beautiful dream" come true. The Chief, who rose to the command of the department after twenty years of actual service, from patrolman through all grades and ranks, had a theory he wanted to put to the test; but he did not get very far at first in creating the zeal and enthusiasm necessary to force official sanction of his plans. He believed that every peace officer in America should be highly skilled in the use of firearms, and he felt certain that one of the greatest deterrents to crime would be the widespread knowledge that policemen can and will hit what they shoot at, and will not hesitate to put their skill to the test in emergency.

In the Los Angeles Police training school, where men who have passed the civil service tests are given a three months course of intensive physical and mental training before they are permitted to wear a police uniform or carry a gun and a badge of authority, expert revolver instructors, with regular army experience, put the trainees through difficult firing tests. At the same time the novices were carefully studied by men with reputations as psychologists and psychiatrists to determine the degree of emotional stability possessed by each candidate for admission to the service. Chief Heath started this system in August 1924, when he took command of the Los Angeles Police Department; but for many months it seemed he could go no further. The graduates of the school were fairly good shots, and did some remarkable efficient work in "winging" bandits and burglars; but these young men of special training were in numbers less than one-fifth of the departmental strength.

The chief problem was one demanding a solution which not only would provide revolver practice for all the veteran members of the department, and make the least skilful improve, but also to get a plan that would meet the approval of the City Council and other public officials. There were many obstacles to overcome. Policemen do not get such salaries as would make them feel justified in firing thirty or forty shots frequently at approximately five cents per shot; and if they did consent to become extravagant in their expenditure of ammunition there was no publicly owned target range at which they could meet for personal instruction and in departmental or inter-departmental competitions. Also, it would not be easy to convince city officials, in the midst of a political campaign, and at a time when they were declaring their firm belief in "retrenchment" and "economy," that the taxpayers should have any of their money burned up on a target range, or that any cash bonuses should be paid to encourage "reprehensible extravagance."

The Police Chief managed to get past one barricade. He had aroused widespread enthusiasm for the Police Training School, and had so spread his publicity regarding his innovation as to be able to get an appropriation of $16,000 for the purchase of ammunition to be used by student policemen. Later he had the request so modified that it could be interpreted as allowing any policemen to use the ammunition in actual instruction courses. This was a good start, but there was no target range suitable to the needs of a large number of men. Specifications for the new police stations under construction called for revolver ranges in each one; and one of these, the Newton Division, was completed. Some of the officers assigned to the new station house got in a bit of practice, but they were not enthusiastic about spending much time in a smoky cellar-range. The Hollywood Police Division had a team of excellent marksmen in the field, meeting any outside departments, and gaining a long string of victories, but, nevertheless, there had been no notable progress in developing shooting skill throughout the entire force.

And then, early in February 1925, Captain E. C. Crossman came upon the scene, and decided to pioneer the field for the N. R. A. He learned of Chief Heath's fight against many obstacles and decided to become an ally. The first move was to get the City Council interested by means of organizations outside of the Police Department, and it was necessary to make news which would arouse enthusiasm and gain the cooperation of military, patriotic and civic organizations.

Captain Crossman gained the cooperation of Mr. Pat Shepard, an experienced police reporter, and the two began to make "marksmanship news." The Captain then broke into print in a morning newspaper, to which he is a regular contributor, and did a Paul Revere act in arousing the public to various dangers to be expected if policemen could not be familiarized with and made highly skilful in the use of the weapons carried to protect the oft-menaced citizens and taxpayers. Of course old "Vox Populi" began to write in to the editor of the paper, and also to the Chief of Police. Immediately Mr. Shepard began to have ample material on which to base his pro-markmanship news. Every time a captain, major, colonel or brigadier general could be reached for an indorsement or a statement there was more publicity. Finally the policemen began to get excited. They wanted to have lots of shooting practice, and, in fact, clamored for it. And, as the moving picture title writers put it, "in the meantime" the Public Relations Bureau of Chief Heath's force was planting news and stories here and there.

Mr. E. H. Risdon, editor of the American Legion Weekly Bulletin of Los Angeles County, joined the campaign, and soon there were heavy indorsements from Legion posts and from various other organizations of men

who gave military service in time of war. Colonel Walter P. Story and the entire staff of the 160th Infantry, California National Guard, began active work to have the police force recognized as a valuable adjunct to the national defenses, and arranged shooting contents between National Guard units and police revolver teams. Major George Ruhlen, Jr., C. A. C., commanding Fort MacArthur, assigned expert instructors in firearms to work with the police of all divisions and placed the target range of his military reservation at their disposal. Lieut. Colonel Perry Weidner, president of a bank, and one of the most noted Masonic leaders in the country, led a delegation to explain matters to the City Council, and the activities which ensued would fill a volume.

It is necessary to shorten this story, and so we will jump along to where the results became very impressive. One day Chief of Police Heath persuaded the Los Angeles Board of Park Commissioners to set aside a small canyon in Elysian Park for the site of a revolver range, and immediately Captain E. C. Crossman visited the place with division commanders and outlined the kind of work that must be done in having it safe and properly equipped. The City Engineer's office had some engineers working in the park near the range, and on the morning of Captain Crossman's visit the engineers were borrowed, surveyed the land, and turned in a tentative draft of their plans. On that very same day construction work began. Police Officer Ronald French, who had been a first sergeant in the regular army for approximately sixteen years, and who has a great string of war medals, was assigned to the range in charge of working crews of a big gang of prisoners from the Lincoln Heights Jail. The prisoners were given a "special outing" of wholesome out-of-door activities by order of Chief Jailor John L. Shand. Sergeant Henry S. Fickert, Division of Jails was authorized to furnish all material necessary and, with the aid of his superior officer, had good food served in the canyon and also acted as a quartermaster.

The floor of the canyon was leveled and smoothed, pits were dug, a big canopy or shelter was built for the firing line, a roofing company was talked out of material for a very handsome water-proof roof, gravel and crushed rock was hauled in and a new road was started along the rim of the canyon to make it easier of access. Despite several holidays and the rainy season the rifle range was pushed to completion, and the prisoners who did best in construction work were allowed to qualify for duty in the pits, raising and lowering the big targets according to signals from the whistle tooted by Officer Ronald French.

And, once more we offer an "in the meantime" explanation. Captain Crossman rallied his cohorts and prepared a communication to the City Council. He had the indorsement of all the leading patriotic and military organizations in the city and so was ready for lots of action. He composed a very impressive statement of facts, and asked that the Council

The target pit of the new Los Angeles Police Range at Elysian Park. The title cut on opposite page shows Chief of Police Heath sighting in.

authorize the Chief of Police to pay additional salary awards to policemen who qualified, under rules similar to those adopted by the N. R. A., as marksmen, sharpshooters and experts. He set his scale of awards rather high, by prearranged plan.

At the same time Chief of Police Heath sent a similar and equally impressive communication to the Board of Police Commissioners, and obtained their indorsement and recommendation to the City Council that the markmanship awards be authorized. However, the Chief, who is supposed to be very thrifty and conservative, asked for lower awards than those mentioned by Captain Crossman. This difference was prearranged also.

Then the Crossman contingents and the police cohorts began to try to get their requests granted by the Council. Many meetings were held with the Finance Committee and a series of strategic moves came in rapid succession. A few of the reactionary councilmen could not see any reason why a policeman should "fire away the taxpayers' money" and they wanted to know why "a scheme to get salary raises before the Spring budget came up for consideration" was sprung on them.

One day Chief Heath went before the Finance Committee and made a very short but pointed address. He agreed to *compromise* between the request sent in by Captain Crossman and his own request. He had the most active support of City Efficiency Director Guy Knox, an army major during the World War, who strongly recommended that the compromise scale of awards be granted. The Finance Committee reported favorably, in a few days the measure was passed by the city council, and a few days later the mayor signed an ordinance which allows the Police Department to pay five dollars, eight dollars and twelve dollars per month additional salary to policemen who qualify as marksmen, sharpshooters and experts respectively. The payments are to be made for the period of one year from the time each man qualifies under rules adopted from the N. R. A. by Captain Crossman, and as this article goes to press the ordinance is in effect and many men are in the try-outs or preliminaries, making remarkable records.

The Chief and Division Commanders have met and selected a Board of Judges comprising Captain E. C. Crossman, Colonel Walter P. Story, 160th Infantry, C. N. G.; Major Hewett C. Callender, 160th Infantry, C. N. G., and Police Commissioners Thomas Foss and I. W. Birnbaum. The judges have accepted the honor and hard work, and each of these five men is widely experienced in markmanship work and in the general use of firearms.

At the risk of being tedious we will offer herewith a draft of the rules finally adopted, and under which the prelimary qualification tests began Thursday, April 9th:

1. Qualification shoots will be on the first Thursday every month, and at no other time unless announced by special bulletin.

2. No officer will fire in a regular qualification shoot who has not previously fired at least twice through the regular course in record practice, and who has not scored at least 70% of the possible score. The range will be open every day but Monday to permit officers to practice, and to make the required preliminary scores to entitle them to enter the qualification monthly shoot.

3. The course of fire for qualification and increased monthly pay will be as follows:

Arm: Colt or Smith and Wesson revolver, barrel not longer than six inches, chambered for the caliber .45 automatic cartridge.

Trigger pull: Not less than four pounds, to be tested before the competitor commences his score.

Ammunition: Full charge factory loads, either rim or rimless, of Government or private manufacture, either lead or metal patched bullets. No reduced loads or reloaded ammunition permitted in qualification.

Sights: Fixed or non-adjustable. The rear sight may be widened to suit the competitor and any form of bead not interfering with quick drawing may be used, but no adjustable or "target sights" will be permitted.

Target: Fifty yard Standard American with eight inch black and three on one-third inch ten ring, for slow, timed and rapid fire. Target "E", man-figure, eighteen inches wide and about four feet high, will be used for the Bobber course.

Distance: For all firing, twenty-five yards.

Position: Standing, gun held in one hand.

Coaching: Permitted in all preliminary qualification and practice shooting. Not permitted in the official qualification score.

Course:	*No.*	*Points*
a. Slow fire, one minute per shot, two scores of five shots	10	100
b. Timed fire, twenty seconds, per five-shot score, two scores	10	100
c. Rapid fire, ten seconds per five-shot score, two scores	10	100
d. Bobber target, three seconds per shot, five shots per score, two scores	10	100
Total shots	40	400

4. Qualification scores.

	Points
a. Marksman, $5 per month, 70%, total	280
b. Sharpshooter, $8 per month, 80%, total	320
c. Expert, $12 per month, 90%, total	360

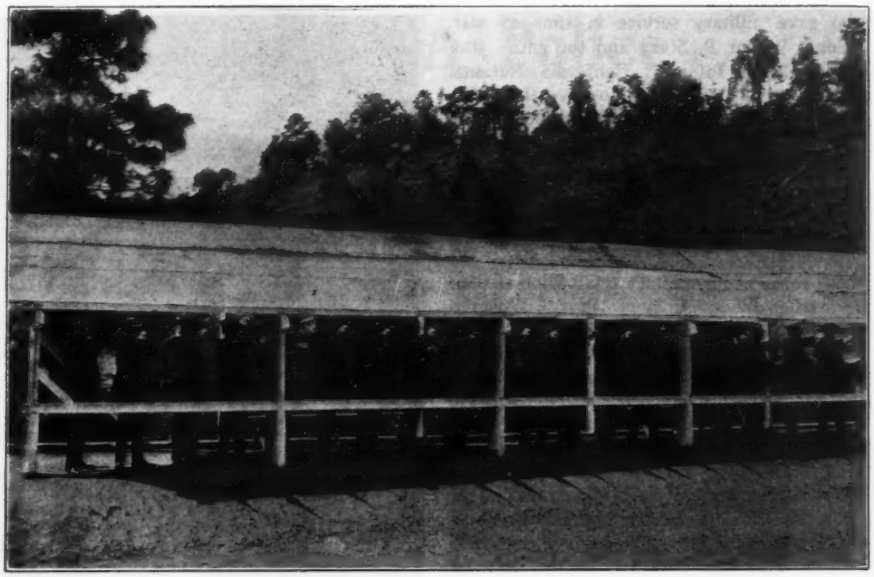
5. All qualifications as Marksmen, Sharpshooter and Expert will automatically terminate at the end of each fiscal year, June thirtieth, commencing June thirtieth, 1926, and all additional pay for these grades will terminate at the same time. The qualification year will commence April first and any officer who has not re-qualified between April first and July first, will lose his grade, if any, and increased pay until he again qualifies. Additional days of official qualification shooting may be announced if needed, to permit all men to fire during these three months. An officer may fire in each qualification shoot until he has qualified.

Suitable badges will be furnished those men qualifying for the various grades, to be worn only as long as the additional pay for that grade is being drawn.

6. *Procedure:*

Upon arriving at the range each officer will register his name and badge number and will be given a target and a relay number, each relay consisting of as many competitors as there are targets. Each relay or squad will fire completely through the course before another relay is called to the line. "Target No. 6, Relay No. 3" would mean that the competitor would fire on Target 6, and in the third relay or squad of twelve men.

Officers may be called on to mark targets for a relay firing before they are due to fire.



The firing point of the Los Angeles Range, showing the covered shooting stands. All illustrations through courtesy of the Keystone Photo Service, Los Angeles, California.

Relay numbers will remain the same, target numbers may be changed as a relay is called to the line to prevent the marking crew from knowing who is firing on a particular target.

Slow fire. At the command of "load" the competitor will place five cartridges in the cylinder, close the gun and raise it to the position of "Raise Pistol" pointing at about forty-five degrees above the horizontal, gun not cocked, finger outside of the trigger guard. At the command "Commence Firing" he will cock the gun and commence firing at the rate permitted, one shot per minute. Unless otherwise instructed at the end of five shots he will reload with five more and fire the second score without additional command.

Time and Rapid Fire. At the command "Load" the competitor will load and close the cylinder and bring the gun to the position of "Raise Pistol," hammer unlocked, finger outside of the trigger guard.

At the command "Ready" the gun will be cocked, the gun kept at "Raise Pistol" position until the appearance of the targets. When they commence to move, the gun may be dropped to the aiming position and the five shots fired. All unfired shots count as misses. In case of a misfire the five-shot score will be repeated but the primer must show the mark of the firing pin. Snapping the gun on the empty cylinder chamber will not count as a misfire, and the unfired shot, if any, will count as a miss.

Bobber target. The targets being turned with the edge toward the firing point, the command "Load" will be given when competitor will place five cartridges in the cylinder and close the gun and bring it to the position of "Raise Pistol." At the command "Ready" the gun will be cocked but retained at the "Raise Pistol" position.

The target will be exposed three seconds, when the competitor will attempt to fire one shot. After each shot the competitor must resume the "Raise Pistol" position until the target is again exposed. The target will be exposed five times for three seconds at each exposure, and will be turned to the invisible position for five seconds between each exposure. Five shots will be fired, one for each exposure of the target. Each competitor will fire two scores of five shots each. The target will be marked and scored at the end of each five shots and the holes pasted up. Each hit on the bobber counts ten. Misses count zero.

At the end of each five shot score, slow, timed, rapid or bobber, the cylinder will be opened, shells ejected and the gun left open on the shelf in front of the shooter until the command "Load" is given or the shooter leaves the firing point.

If at any time it is necessary to suspend firing before the end of a score, the cylinder will be opened and the gun laid on the shelf before the shooter, until the command is given to resume firing.

Competitors must see that their scores are correctly recorded on the score cards and signed by the officials.

And now, nestling in a thick grove of pine trees, in a beautiful green canyon, sheltered from the wind and sun, there is a Police Target Range of Los Angeles, to which an average of more than eighty-five men go each day to practice with their revolvers.

On Saturdays and Sundays there are contests with teams from other towns or other organizations, and on "test days" there are several hundred men on the range. Officer Ronald French is now "Rangemaster Ronald French" and wears blazing gold insignia to show the distinction he has attained. He is now assigned under the Training School Division and gives free instruction to all novices. His delegated authority is great indeed; but he manages to make even the highest ranking officer in the department like strict military manner and efficient instructions. (*Continued on page 21*)

A Catalogue Dream

By Chauncey Thomas

IN the past there has been some doubt whether the Bible or the Koran is the better book, and even yet Europe is holding a friendly discussion on the matter with Africa and Asia at about a mile distance. Now that is a very foolish and unwise thing to do when New England settled the whole thing a long time ago by combining them into an authoritative Dream Book, which is still religiously thumbed in boudiors, and called the tri-compound a "Gun Catalogue." It is a good book to read, in fact all three are. I doubt if over half a dozen men in Boston or Illinois, a suburb of Chicago, could write better ones. To give a gentle hint of what to expect when you go forth to slaughter, the Rem Folks added the well known symbolic slogan "Blood on the Moon," and earnestly tell us to stop, look and listen for the Red Ball. So impressive has been their suggestion that even the game does that, then trots along. As red seems to be the cartridge color, the W. R. A. people branded their loads on the right hip, at least in six gun affairs, with "The Scarlet W," and the Western, either as an autosuggestion of the value of their own product, or as a compliment to the Winchester I don't know which, and maybe they don't, set theirs in a ruby diamond, and call it good. Out of 26 letters, why fight over one of them? Still, men do the same thing about women.

The Catalogue (big "C," please) contains valuable information. Also very cheap prices. For example, the easiest way to kill an elephant is to pick up the Catalogue, put your be-socked feet in the other chair, and blow a tunnel through the head of the circus with a corncob pipe. It also cuts the expense of Crossman's 69 trips to Africa down to a postal card that delights the cartridge concoctors, "Send catalogue." I've got an armful.

Now a cartridge is a bottle full of death or color and composition. Some time ago we little chaps backed away about a yard from the stock, poured the powder down the muzzle at a 45 degree angle put the cork into the mouth of the flask, and the flask back into our hip pocket, and missed again. Today we do the same thing, except when hunting, bulls or bears matter not, except for pedestrian exercise for nobody will mark the bear, even the bullet won't as a rule—Anyway, today we put the copper powder flask into the backdoor of the gun and shoot the cork down the barrel. Life all depends on how you look at things. Nothing is good or bad but thinking makes it so. Shakespeare and I agree on that, even if he was an ex-convict for breaking the game laws.

There is a good deal of moonshine in bottles nowadays, both brass and glass. Those little smokeless 22's contain glass, you know. Lots of shooters who use them at the picnic don't know it, that's why they use them. Also saves washing the hands. They never laundry the gun, so I don't blame it for getting crusty inside.

The surest way to achieve a hypnotic condition is not to look at the cartridge but to gaze intently at the columns of figures. But then who reads the multiplication tables?—the most compact and unalterable, hence most perfect, piece of writing ever known. To relish and perhaps digest it, like an egg, the writer has to break it up and whip it into other shapes, lubricate and disguise it to get it down, like butter and rooster berries and any other omelet. The reader is mostly interested in seeing what the devil he is going to say next, and how he is going to say it, and usually very little interested directly in the subject matter itself, and none at all in solid figures, but he thus is unconsciously induced to absorb indirectly what is interlarded between the lines by the unsophisticated writerman. That is, if he has a wise editor. We have. He won't run formulas, not even the multiplication table, classic of classics that it is.

Now a half dozen smuggled bottles, or the usual case, although of somewhat different shapes and of different labels, contain about the same amount of moonshine, red I, Ball or W, about the same. And the same thing is true of brass bottles. Thus the 30-30, the 32 Special, the 32-40, the 303 Savage, the 30 autoloading, the 33 Winchester, the 30 Marlin, contain about the same amounts of death, disappointment or delight, just like bottles of whispered glass. I am moved herein to rise and unburden by an elaborate scheme on paper to put a Navy 6 mm. barrel on the Krag action—a letter just received. I freighted back two cents worth of information to say that he already had such a gun next door, which he had in the same letter slurring referred to as a "pea tosser," in the 250-3000-100 bolt Savage. Good gun, too, but not for bull elk. That's what he wanted it for. Lots of otherwise sane men weaver images out of fairy nothings in Africa, Alaska & Western about the 256 Newton cartridge in "This or That" action, and never get the wave-length that the 256 Newton is a 6.5 mm., with about 400-odd cartridge combinations by crossing something over twenty different 6.5 mm. bullets with about twenty slightly but nothing essentially different 6.5 mm. shells. One can make as many different kinds of 256 Newtons, if he wants to call it that, as he can mix up various 30 caliber loads. Personally, I think the 256 Newton the prince of 6.5 mm. loads, and that barrel on a Springfield action, weight about seven pounds the king of mountain rifles.

The 405 Winchester is a terrible weapon. Awful cartridge. Shoot it once in a catalogue and it is sure to hang two arms on your left side for life and leave the right shoulder only a clean shave. A man had better take that for lion. Yes, Teddy calls it "the medicine gun for cats," although it will neither kill nor chase away the backfence nerve graters. I've tried it on them. But White says it is "not quite enough." And here is a poor innocent back in the 80's who speaks of a 45-70 Winchester on rhino. That isn't in the Catalogue today, so he must have tried it and they buried what they could find. Such a fool, if allowed at large, might shoot at a real, not dream, lion with that relic, the 40-70 Sharps Straight. The 405 is a 40-70.

She got married to a hardboiled bullet, acquired a more expensive brand of powder, and changed her name, just as half the population cartridge or girlish, all hope to do, and as most of them have done. The 45 Holland is my old friend, the 45-120-550 Buffalo Sharps cartridge, dolled up just the same as the 40-70 Sharps, and now not on speaking terms with their old folks who raised them. Poor things, so out of date "don't chew no."

The 375 Hoffman, like some other emigrant of late, changed its name to that in United States, and is known back home, as Maggie something, No. 375. It is our old cousin, the 38-55-255, with a new and bigger barn out back with a little more slant to the roof. The Hoffman 404, also quite English, is the 405 W. R. A. with a helper up the hill. It gives double-header effects, even on a freight train, I think. I have been shooting one of them lately. Got a three inch group, open sights, 100 yards, and a three inch group, blue, on my shoulder, but I was shooting it prone, and a gentleman never gets into any such position with any 40 caliber elephant eraser. I won't again. Still no one shoots elephants for internal amusement but only for external conversational purposes, and the 404 Hoffman is only for feeble and very old elephants anyhow. For the real smashing trunk-heaver use the Hoffman 505, or drop an air bomb. They are the same thing, about. But in Texas fifty years ago they called it the "Buffalo Fifty." That's the kind Jim Baker carried after his Spencer carbine went off both ends and sideways at once and marred his beauty, after the horse doctor sewed him up and his squaws helped piece his face together again. And Jim Baker was in the Indian battle on Williams Fork, Middle Par, Colorado, where my brother has a ranch right now. Jim was there and smoking behind piled rocks with about fifty other young trappers then, in 1820, now over a century ago. He died when I was born, we just swapped places, and Jim packed a "Buffalo Hoffman" and never suspected it. There is nothing new in the paper or the catalogues about cartridges, just the same old thing dressed up, like "ground apples" in fancy French at $1.00 a lettuce-leaf-ful when they mean fried potatoes. We all had potatoes on the frontier and now we are getting

the "pommes" in cartridges, which just cost more because they give a worse pain inside and are dished out by a dress suit.

Take a double barrel shotgun, cut off the choke, lap the insides with rod, lead and emery to a twist oval about three to five thousandths, put in a round ball and powder within life insurance rules, and you have a double barrel express rifle warranted to stop a lion like a dead zebra, all for the cost of $20, if you get a good Smith hammer ducker second hand. Just as good as the one with the English Jack nailed to its ramrod made to your special order right off the second shelf for the extra special price of twenty times $20 by File & Hacksaw, London, you pay the tariff, draft in advance please. A double-twelve (London) is a great lion stopper. It has to be, costs more and has an engraved label.

Incidentally, it won't hit one of my tin cans at much over fifty yards, but the London gun won't either. The Catalogue says it will, so I guess it will after all, if you don't shoot the gun. And a smooth bore will do just the same as either of them. If you are lazy and rich the way I am, then merely buy a sawed-off pump Winchester and poke in the standard ball load as advertised and sometimes sold by Rem. Winchester & Co. Good when the bull gets loose and more handy on rabbit. A superload of No. 4's from the backseat of the auto at the sandy turn will take the place of a big murderous six gun when the anti's get through. And London can get along somehow about the same, unless some million of unearthly heathen take a sulled notion to send bullets instead of dividends, and really prefer the Koran and the Catalogue to the Bible after all. We'll see.

Now comes the man who would not have any 28 Ross because it blows up, give me a 7 mm. every time. The 28 Ross is a 7 mm. and all cartridges blow up if they are any good at all. That is what cartridges are for. They are made to blow up. What he means is that because the suicide gun, the 303 discarded in disgrace Ross army rifle, has its lugs on too much of a slant, and blows open by revolving the bolt, due to that excessive bevel on the lugs, and kills the man behind it, that therefore the 28 Ross cartridge is dangerous, too. The 28 Ross rifle and the 303 army Ross rifle are about as much alike as the 28 Ross cartridge is like the 303 Ross cartridge, which have the same general resemblance as the 45-70 tip-up Army Springfield and the 30-45 bolt Army Springfield, in both cartridges and in rifles. The 28 Ross action—*not* the 303 Ross bomb—with its many-fluted, Newton-like bolt head, is just as strong and just as safe from blowing open or back as any Newton, Springfield or Mauser rifle, and the 28 Ross cartridge itself is one of the very few modern rifle cartridges this side of sunrise, in fact, it is perhaps the best designed cartridge in North America. The 28 Ross action is at times so strong it takes a jimmy to open it and get the empty out, like that bottle in the safe with the time lock set till Monday at banking hours. The trouble with the 303 Ross is that it opens too much and too soon, and the 28 Ross won't open at all. One is a runaway, the other is balky. Related in name only. But get the 28 Ross cartridge in some action long enough to take it, like the Hoffman actions, the Springfield action is not long enough, and you have probably the best combination ballistically to be had in the U. S. or the fringe on us we dub the world. For its size, of course. If you are going to take an evening lamp hunt after lion in Alaska, I mean bear in Africa, how awkward of me, by all means leave your 28 Ross at home and use your brier. You need a stronger weapon. As the 256 Newton cartridge is the best of the 6.5 mm. list, so is the 28 Ross the best of all the 7 mm's. We're getting up in the world.

There are two ways to find out about guns, one more popular than the other; look in and misquote the Catalogue, or go shoot the gun. Catalogues like colleges know so much that ain't so that I have always admired both as monuments of unsupported assumption, although colleges and catalogues have to be supported with cash at intervals or they both pass away into mummified museums. The latter are widely qouted today, both college and catalogue.

But go shoot the gun. Here is where the 30 caliber is the most convenient cartridge we have with us tonight. For the babies there is the 30-30, the soldier has to endure the 30 Springfield along with a whole lot of other annoyances from salutes to K. P., the best of the lot is the 30 Magnum cousin and the 30 Newton. These two are practically alike, but the Englishman has the best design, a consumptive sloping shoulder and a long taper to its waist, where the 30 Newton takes things as it comes from the rear against its heap square, even abrupt shoulders. The 30 Magnum is the 28 Ross shell swollen up a bit. The 30 Newton is the Springfield shell after it has passed a night with a shoe stretcher in it.

The 35 Newton, in this country at least, is in a class by itself. Great cartridge, that. It is simply the 30 Newton reamed out to a 35 caliber, at least so the Catalogue says, and it must be so. My reference library must be subject to changes in the weather, for "Mike" seldom agrees with the Catalogue figures, but then the micrometer is always wrong and the Catalogue is always right. It says so, right there—See! The 35 Whelen is the Springfield, of course, after the 30 Newton is done with the shoe horn, and is a real 35 caliber, and a mighty good gun, but the cartridge itself, has not enough boiler room, so the 35 Newton jolts the ore over the grade in better time, and delivers a bigger load more in keeping with 35 dignity when it whistles for brakes at the terminal.

Winchester has something labeled "35" and Remington has a real 35 rifle, born evidently twins with a bunch of fire crackers. That 35 Rem. cartridge and load is the best hunting combination known in America, it gets meat like a hungry pup in a butchershop, so Ned Frost and I readily agreed during our visit to Buffalo Bill's grave. Ned shoots a 28 Ross and I a 30 Springfield, so I guess he and I must have been reading the Catalogue.

North of 36 we are temporarily embarrassed in calibers, although we can always dig up one or two if the conductor starts to throw us off. The 405 W. R. A. rises from its box right on time like Macbeth's haunt, and is a mighty good brand of the genuine old stuff. It was made before the war and has a real kick in it at both ends. The 40-70, as I gently hinted two sleeps back, the passe 40-72, and the 405 are triplets. Just the insides are different. Now, Brother, sit down. We all know that when you put one in the other gun it didn't go in. Some do, some don't. That is because the cartridge companies are human in some things. It really won't do in good society to put a bellowing 405 into an action and tiny barrel designed for black or low-power, so of course the 404 won't go in the 40-70 Ballard, nor the boxgun 40-72. It is made just a few thousandths large in the waist band for that especial purpose, so it won't go in and ruin you. Same as the 38 Special S. & W. revolver cartridge was designed for accuracy, and it is the most accurate six gun cartridge ever made. To insure that some cheap genius would not put lower priced 38 common S. & W. cartridges in and hence get less accuracy from the target sideswings than from a 38 hammerless, the 38 Specials were created just a bit too small in the chamber to take the 38 S. & W. cartridge, because the bullet then would be too far from the lands, and shoot with that reliable wildness of a 22 short in a 22 L. R. gun. There are some things in guns and catalogues, Horatio, that are not dreamed of in thy philosophy. Except the 405 Winchester, which is a first class, reliable, accurate and killing load, I think other 40's are myths. Like hoop snakes and fanning a six gun. We hear lots about them, even the Sacred Book mentions them, like Newton and Whelen 40 calibers, but they seem to die out crossing the plains, or get tender footed from the cactus and turn back. At least so it seems about 40's other than the 405 Winchester here in the lowly Rockies.

The Hoffmans turn out a real old He 404. No doubt about that. I have one right here in this room right now. And keep an eye on it. It might start for me, never can tell about Great Danes. But I got even with it some volumes to the rear. The guns that distinguish the whole Hoffman list are of course American made, hand made for that matter, except the cartridges and the actions. Those come from far. But Western is plotting to make all the best loads for the Hoffmans right here. Incidently I hear a queer sound that the Western is about to give birth to a 30 caliber, 170 grain. B. T. load idling along 4,000 ft. sec. Yes, print that four thousand. Don't know anything about it—it isn't in the catalogue—so ask them. I'm out of stamps. Stamps cost money, too.

Being a good cook, I by nature leave the best dish for desert. Although the 375 is not yet an American cartridge, it soon will be. just as soon as the doctor leaves the Western premises. And the American Hoffman outfit make the 375 rifle. I've shot it and live to tell the tale. Same with the 404, but that was a miracle, a (*Continued on page 19*)

Solving Mysterious Killings

By Captain E. C. Crossman

EVERY now and then an astute police department runs into a firearms variety of the old question of the missing link. This is usually a case of having a bullet, likely extracted from a victim, having a suspect, and having a gun. The purpose of the game is to connect up the three.

Or the case may be different in that the police are called upon to disprove an elaborately and carefully hatched yarn of a suspect as to the circumstances surrounding a killing, or to prove that if the victim was a suicide, he or she would have had to be double jointed and able to stand more gunfire than a grizzly.

Rarely is the killer in murder cases, expert enough in firearms to avoid making foolish blunders, easily read by the eye of the expert, aided of course by the microscope and technical data with the requisite instruments for measuring small objects.

Given the bullet which did the killing, and the gun from which the bullet was fired, and the chances are very much in favor of being able to connect up the two even to the satisfaction of a jury, which is different from the satisfaction of the police investigators as they can testify with grief.

The only safe way for the suspect is to get rid of the gun, destroying it, or putting it where it is not likely to be found, such a location being, for instance, about half way between New York City and Staten Island.

The police of a Western city are holding a woman suspected of having killed her husband although she claims that burglars did it, and locked her in the closet where she was found. The man was shot in the head with a .25 Colt automatic pistol, the gun not being found at the time the police came into the scene.

Later, however, it transpired that the lady turned over to two friends two guns of this caliber with instructions to destroy them, the guns being broken up with a sledge and buried. When the police got them both the barrels and the breech-bolts were so badly corroded that no identification could be made through the usual means. It seems unlikely that a conviction ever will be had because rust destroyed the connecting links.

Matching a given bullet up with the gun firing it is as simple in the first steps as matching up a shoe with a foot-print.

Not long ago some detective friends called me in to determine whether a bullet taken from a murdered man was fired from a Colt .380 automatic pistol, found in the possession of a couple of suspects.

This was a case where the boys could have saved me a trip from the suburbs by the simple matter of a pocket magnifier and a little acquaintance with the inside arrangement of the well known automatic pistol barrels.

The first glance through a low-power magnifier showed that the bullet had on its coppery surface seven distinct and narrow land-marks, which of course make grooves on the bullet. They were right hand twist—that is the spiral, bullet point held away from you, turned as do the hands of a clock.

Only one automatic on the market has seven narrow lands, this being the Remington.

The Colt has only six lands, instead of seven, they are twice as wide as the Remington lands, and most easily distinguished of all, they turn to the left instead of to the right. This is the only American pistol which does have a left hand twist, and a Colt gun is easily identified from its bullet by the mere direction of the "twist" or spiral of the rifling in the bore.

In figures the Colt .380 lands are .062-inch wide, the Remington only .25.

The Smith & Wesson is always a right hand twist, with but few exceptions only five lands, and the lands are far wider than either Colt or Remington. The .32 D. A. and Safety has six grooves, the .45 revolver made for the Government during the war had six grooves, the .22 guns of this make and the .35 automatic, of which but few were marketed, all had six grooves. The rest of the entire Smith & Wesson line has but five grooves and it is thus safe to generalize and say that a S. & W. can be told by its five grooves and wide lands. The lands—which of course are represented by the grooves on the bullet—appear as wide as the grooves, which would be the raised portion or ribs on the bullet. They run nearly twice the width of the Colt lands, and four times the width of the Remington.

The Savage automatic pistol, which bobs up now and then, has six grooves and a right hand twist, the width of the grooves—the raised portion on the bullet of course—being .115-inch in the .32 caliber and .125-inch in the .380. The width of the lands is about .047-inch or nearly twice the width of the Remington.

It could not well be confused with the Smith & Wesson because that gun is not made at present in the .32 or .380 automatic calibers although a model is nearly ready for the market, and because the S. & W. land is very wide and there are only five of them.

The left hand twist of the Colt prevents the Savage from being confused with that make, while the seven narrow lands of the Remington are plain enough to distinguish that gun from any other.

The cheaper guns of American make are not often found in the automatic pistol variety.

The Iver Johnson, as a well known make of less expensive gun, is turned out in only the .22, the .32 and .38 S. & W., and the .32 Long and Short rimfire. They also make the gun they call .32 Special, chambered for .32 Colt New Police and .32 S. & W. Long, center fire.

They are all right hand twist, five grooves and have wide grooves and lands. Here is a make which is difficult to distinguish from the Smith & Wesson, using the same twist, same groove and land width so far as practical purposes go, and having the same number of lands and grooves, as the Smith & Wesson.

There are at the present time a whole flock of cheap, shoddy foreign pistols and revolvers being shoved off on this market by irresponsible "importing companies," advertising this junk to the yokels through various farm papers. They naturally complicate the situation of identifying a gun by the bullet where the gun is not found, but as a rule when the gun is found, the bullet can be hitched up to it by the very rotten work done in the rifling and boring of the barrel which leave peculiar irregular marks on the bullet, easily determined by a powerful glass.

This is of course work for an expert microscope man, with possibly large photo-micrographs made for the information of the jury, but the point is that the police officer or detective or district attorney should know that this is possible, and not throw up his hands in despair.

A bullet of foreign make is usually easily identified by the fact that such bullets rarely carry the "cannelure" or groove around the bullet jacket into which the mouth of the cartridge is crimped. About 90 per cent of the foreign made ammunition used in this country is for the various automatic pistols, which means of course metal jacketed bullets, with this crimping groove as a rule when of our make, and without it when of foreign make.

It should be remembered, too, that in spite of the "steel jacket" bunk of the average newspaper man, our pistol and rifle bullets are not jacketed in steel, but in copper or a mixture of copper and nickel. As a rule the pistol bullet is copper jacketed, with the jacket plated to prevent corrosion.

The foreign bullet is often—but not always—jacketed with steel, and if it responds to the blandishments of a magnet, you can make up your mind that the bullet was never made in this country. Obviously a copper jacket bullet won't be affected by a magnet, and a steel jacket bullet will.

Sometimes a bullet, particularly a lead bullet, is mashed up so identification by the rifling is not so easy. There are other ways of finding out what the little stranger was in the bullet family. One of them is by measuring the diameter of the base, if there is enough left of that to measure accurately, another is by weighing the bullet and comparing the results with the factory table of weights. A bullet may lose a little weight in passing through hard objects, but it never gains any. Therefore if it weighs perceptibly more than the standard unfired bullet of the sort you suspect was used, it is not of that tribe and you have to guess farther. For instance the .32 Colt New Police bullet weighs about 100 grains. The .32 S. & W. weighs 85 grains.

If the fragment of lead you weigh runs 93 grains, it might be the .32 Colt New Police,

minus some lead, but it could not be the .32 Smith & Wesson.

Metal patched bullets rarely lose their shape enough to prevent identification except possibly when fired against a stone wall or a steel plate, and not always then. I lately weighed up and calibrated four .380 bullets which had gone through a murdered man, some of them hitting bone. Not one of them had lost more than 3 grains weight and none of the bullets were more than one-thousandth of an inch off standard diameter.

Another bullet, a .32 which had driven through the head of a doctor in a notorious trunk murder case in the West, was practically unchanged in caliber measurement, and was altered only in that the jacket had split along one land mark, near the point. The seven narrow grooves in the bullet could easily be determined. This was another metal patched automatic pistol bullet.

Once a bullet has been demonstrated as having been fired from a given make and caliber of gun then the positive identification of the bullet from a particular gun is not so easy, but is often quite accurate. Rust spots or defects in the original bore of the gun show on the fired bullet. They may not always show on the bullet from the victim because impact on a hard substance or scraping may remove the peculiar engraving. If the bullet does show them, however, the same marks can be duplicated by firing more bullets out of that gun and catching them in some soft substance such as cotton waste, cotton, oiled sawdust, or a big tank of water.

The cheaper the gun or the poorer its bore condition, the more likely the bullet to have peculiarities to identify it. This is the field where the expert microscope man and the high power instrument come in.

Quite often microscopal examination of the heads and primer of the fired cartridges may be used to prove that the cases found at the scene of a crime, came from a given gun. Every pistol, no matter how nicely made, has peculiar tool or file marks on the breech bolt face and on the firing pin, and usually a high power microscope will detect them, and their imprint on the primer of the cartridge or the head of the case.

It should be remembered that when a cartridge is fired in a pistol or revolver, an internal pressure is developed which will run from five to eight tons per square inch. This terrific thrust drives the primer back into full engagement with the breech bolt face, showing the marks thereon, and the shape of the firing pin like any other piece of soft metal forced down over a die.

The officer wants to be careful not to jump at the conclusion that a metal jacket bullet necessarily came from an automatic pistol. All automatic pistols use jacket bullets, but not all jacket bullets come from automatic pistols. Revolver cartridges loaded with jacket bullets similar to those used in automatic pistols are loaded for the .32-20 or .32 Winchester as it is variously known; .32 S. & W. Long; .38 S. & W.; .38 S. & W. Special; .38-40 and .44-40. Others may be on the market by this time.

The automatic pistol often leaves its toothmarks on the mouth of the fired case. I am not sure how universal this is with the automatic tribe but most pistols I have fired show this peculiarity.

This is a bending or flattening out of a portion of the shell mouth, the extent varying with different pistols. It is never found on a normal fired case from the revolver, and is so often found on cases from the automatic that I am surprised that police and firearms "experts" are not familiar with this means of classifying the type of arm firing the cartridge.

This battering of the shell mouth out of round is evidently in the process of ejection and comes from the case striking violently against the slide as it is tipped by the ejector.

The question might arise, as in the Elwell murder in New York City, whether the case had been fired in a Model 1917, Colt or Smith & Wesson revolver, or in the cal. 45 automatic pistol. Strangely enough this was also one of the vital points included in the famous Cronkhite case which has occupied the newspapers on and off for the seven years since the war. Considerable evidence hinged upon whether or not the empty shells had been fired from an automatic or a revolver and it is strange indeed to think that among the experts called not one could testify on this point. A case with muzzle entirely free of flattening would indicate the probability of the revolver. A case flattened at one portion of the muzzle would indicate almost certainly, the automatic pistol.

The .32-20, .38-40 and .44-40 are of course either rifle or revolver cartridges and may come from either type of gun.

The question of powder marks has given rise to much hot argument in the trial of cases.

The authorities read on the subject, such as Haines & Peterson, are regrettably lacking in definite information, while older books babble about black powder cartridges which are not used one time in a hundred cases.

Modern pistol and revolver cartridges are practically always loaded with a very fine cut, paper-like flake powder known as Bull's-eye, and composed of about 40 per cent nitroglycerine and 60 per cent gun cotton. It is very quick burning to do its work in the short time the bullet is in the barrel and to make up for the leakage of gas around the revolver cylinder. The charges are very small, running from 1.3 grains for the little .25 automatic up to 4.8 grains for the .45 automatic.

In spite of the fine cut and the fast burning of the powder it is not all burned up, and up to about 18 inches for the small automatic pistols and 30 inches for the largest ones, the unburned or partly burned grains can be seen on contrasting white material such as canton flannel.

Up to a distance of six inches or so, the modern smokeless pistol cartridge also makes a "blackened smudge," speckled here and there with the powder grains, this smudge coming from the carbon blown out with the gas, and the residue of the completely burned grains in the bore. This is entirely different from the "tatooing" of the individual powder grains which are blown out much like shot from a gun and naturally travel much farther than the black, finely divided carbon which makes the close-up smudging on cloth.

A gunshot wound showing this smudge around it, and made with what is known to be a modern pistol or revolver cartridge was emphatically made with the gun very close, within six inches.

A gunshot wound showing the tatoo marks of powder grains—often showing as reddened marks on the skin—was made with the gun not more than 18 inches away if of the small pocket revolver or pistol type, or 30 inches if the powerful .45 automatic, 7.65 mm. Luger and similar "military" type calibers.

A pistol held with the muzzle against the skin will blow an irregular jagged hole from the violence of the powder gases escaping behind the bullet, and there will be powder grains and blackening along the wound channel. This tendency to blow jagged holes is so marked that the tearing will extend through two or three garments.

One set of garments I examined from a murdered man showed the blacked, jagged tear through over-shirt, heavy undershirt, and a cotton union suit below that. My tests made with the muzzle of the gun against similar garments showed precisely the same effect.

The woman doing the shooting testified later on the stand that she had pressed the muzzle of the gun against the man's back.

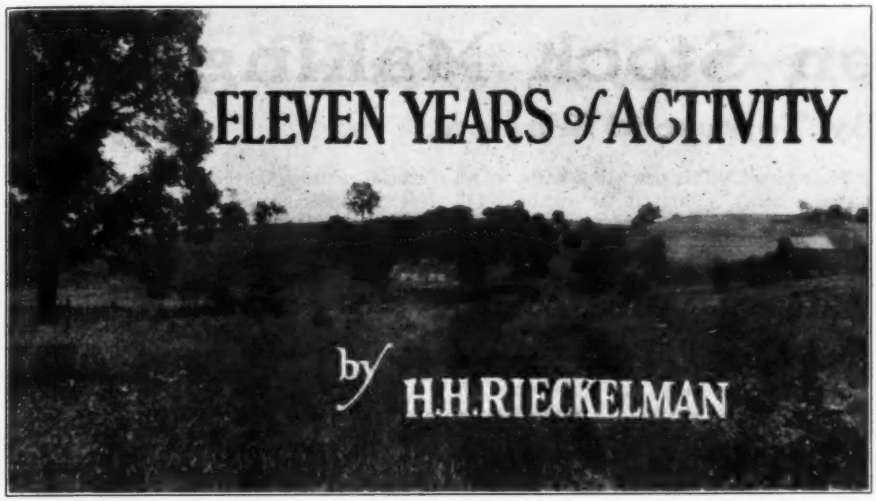
Black powder ammunition shows the powder marks much farther than the smokeless, due to the longer time taken to ignite black powder, and the greater weight of the individual grains.

It is not always safe to reconstruct a crime by the evidence of the powder marks and to prove thereby that the victim could not have shot himself or herself with the gun held naturally. A gun cannot as a rule be fired with the arm more than half-flexed, but there is the little joker of pulling the trigger with the thumb which permits the gun to be fired 13 to 16 inches away from the head, for instance—so far away that there may be no powder marks in such a location as the scalp and seem to show that a murder was committed.

The investigator does not want to fall for the ancient wheeze beloved of the fiction writer of a gun being placed and *retained* in the fingers of a dying or dead man.

Experiments have shown that a gun firmly gripped in the hand of a dead person, was held in that hand by conscious effort before the person was killed. Placing objects in the grip of dying or dead persons has always failed to find that the grip is retained.

The person committing suicide, or murdered does not always retain the grip in the object held in the hand. The reverse is often the case. But, when such a grip is retained and the police find some object such as a gun or a paper, gripped in the hand of the victim, the proof is sure that it was being held in that hand when the victim received the deathwound, not planted afterward.



THE Miami Rifle Club of Cincinnati, Ohio, was organized in 1914 by a handful of rifle enthusiasts under the leadership of Capt. Henry Rawson, but did no firing until 1915 when our first range, with but one target, was put into service. We were able to fire at 200 and 300 yards on this range. However, our membership gradually increased and the following year found us with a 600 yard range. The interval preceding 1917 was more or less successful but the call to arms depleted our ranks to a considerable extent, seventeen of our members joining the colors and every one of them qualified as an expert rifleman.

In 1920, through contributions and loans ranging from five to twenty-five dollars per member, a heavy concrete target pit fifty feet in width with an abutment eight feet high was constructed on our present range at a cost of $650. The pit contains three frames for target "A", and three for target "B", and was placed at the foot of a hill approximately seventy-five feet high giving an excellent bedding place and stoppage for the bullets.

The range is a level piece of ground, a natural amphitheater surrounded by bluffs, through which a brook winds its way. Stately sycamores, elms, and lofty shellbarks dotting the sides and the bluffs, making it a retreat singularly adapted to our purpose and to which one may resort for a day of relaxation or club activities.

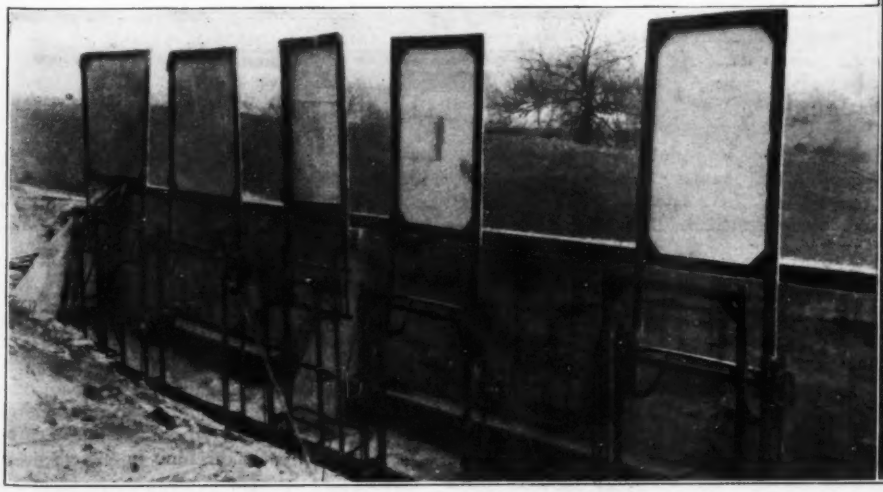
The grounds are laid out in four ranges; 200, 300, 500, and 600 yards, a telephone line running the full length with stations at each firing line; a portable telephone at the pit and one to be carried for the four stations in the field. Seats are conveniently located at each range for the accommodation of visitors and members. A spring of pure, cold water is a feature, contingent to all firing lines and a luxury that is well patronized on a hot summer day.

The membership has grown from a small beginning to a present roster of about eighty-five men. The initiation fee is two dollars and yearly dues five dollars. We collect from each member appearing for practice on the range fifteen to twenty-five cents to pay target boys. Considering the dues and moderate assessments, the expense will not sum up much over ten dollars per year for an active member of the club.

The past season, 1924, has been the most successful year in the history of our club. Members have taken more interest in the activities and have substantially assisted and encouraged their officers by attendance, practical suggestions and manifest good-will. Through personal and material efforts of the members, expenses have been kept down to the minimum, all repairs and improvements to the pits, range and property shack have been made by volunteers. In consequence of these economies, the finances of the club at the end of 1924 had improved to the point that it was deemed possible by the executive officers to pay some of the obligations incurred and accordingly a forty per cent dividend was distributed among the members who had contributed or loaned the necessary funds to build the pits. With the substantial balance on hand and the prospects of the coming year, the expectations of cleaning the slate of debt appears encouraging.

The activities of the club have been interesting and varied. The early part of the season starting in May was devoted largely to off-hand shooting at the 200 yard range. To stimulate interest and practice, we put out medal cards selling ten for a dollar, each card to show a string of ten shots. If a score of 38 or better was made on all ten cards, the holder became entitled to a bronze medal of 76%, if a score of 40 or better, a medal of 80%, etc. Ninety per cent called for a silver medal and 100% for a gold medal. The same feature was followed on the 300 yard range, beginning with a score of 40 or over, and at 500 yards beginning with a score of 45 or better. The end of the season showed fourteen medals won, winnings distributed over the three ranges. The income (*Continued on page 20*)

No! This is not part of the new butts at Camp Perry, Ohio, but is the target pit of the Miami Rifle Club, which, in 1920 after six years of continuous activity, found it a paying proposition to install A-1 concrete butts. The title cut shows a view of the range from the 600-yard firing point.



Notes on Stock Making

By Townsend Whelen

ABOUT nine months ago I got a Winchester Model 53 rifle, caliber .32-20 W. C. F., solid frame model, just the ordinary factory rifle with no frills. Since then we have shot it a lot down here, both at targets and small game. Have used the Winchester make of .32-20 low pressure smokeless, soft point, ammunition exclusively, which is the only make I know of which will not corrode the bore when properly cared for. At fifty yards it will group steadily inside of a 1½ inch circle, and at 100 yards inside a 3 inch circle. Have not tried it at longer range.

I have often taken this rifle to the range along with a number of the finest De-Luxe Mausers and Springfields, and invariably it excites more comment and is handled more by the large number of experts and cranks on hand at the firing point than any rifle that has yet appeared. All like its handiness, its light weight, and its compactness. Its strict simplicity appeals to everyone. But one and all criticise the stock, and personally this is the only fault that I have had to find with it. The stock is, or rather was, only 13 inches long, and had a 2¼ inch drop at the comb and 2½ inch drop at the heel. The toe of the stock was farther from the trigger than the heel. The butt-plate was very boy sized being only 4⅝ inches long. As a consequence when one came to aim it he found that only the toe of the butt was touching the shoulder, the side of the face was not properly supported by the comb of the stock so that the eye bobbed around in the line of sighting, and in rapid fire, if the butt was held to the shoulder as it should be, the act of throwing the lever down invariably caused the butt-plate to slip down off the shoulder due to the wrong angle at which the butt-plate had been placed on the stock. In other words practically every mistake that could have been made had been incorporated in this stock. I was not alone in finding these faults. They were glaringly manifest to every rifleman who handled the rifle.

In all other respects the rifle was such a good and useful little weapon that I determined to restock it, and the photographs herewith illustrate the new stock in the making and completed. This new stock has a length of 13½ inches, a drop at the comb of 1¾ inches, and a drop at heel of 3⅛ inches. The butt-plate is of checked steel, of the Mannlicher-Schoenauer type, with trap in it for cleaning implements. It has a length of 5⅛ inches and a width of 1⅝ inches at its widest part, and is placed on the stock with a 3 inch pitch, which is to say that the toe is nearer to the trigger than the heel so that when the butt rests on the ground the muzzle of the barrel is three inches out of a perpendicular through the breech. The stock now fits everyone who has handled it most perfectly, and is a great improvement. It should be mentioned that this Winchester rifle is essentially an offhand rifle intended for small game hunting, and that this stock has been designed essentially for shooting in the offhand position, but it is much better for prone shooting than the old stock was.

Above—The stock in the making showing four-square shape of original blank retained until all metal parts have been fitted in.
Below—Looking down on the stock, all metal parts let into the wood. Had the blank been shaped up first the butt would have been way out of line.

I made this stock in my combination bedroom and workshop. The only tools used were a hammer, hand axe, two chisels, two gauges, one rasp, one file, a brace and bit, and a small $2.00 iron vise secured to a small kitchen table, and some sand-paper, and nothing else.

Since I wrote and published "Amateur Gunsmithing" I have been privileged to see a great many stocks made by amateurs, and also a great many failures. I find that these failures are due almost entirely to two things. First, lack of patience and too much speed. Second, to shaping the stock up first instead of keeping it four-square and unshaped at all until after the metal portions of the action have been let into the wood. I tried to place special emphasis on this latter matter by placing it in italics at the top of page 20, and also by Figure 4 which shows a Springfield stock all cut out for the receiver and guard, but still four-square, that is with its full thickness of the original bland, and all edges square, and entirely unshaped. But evidently the temptation to see what the stock is going to look like when it is completed is too much for many men, and they must go to work and shape it up with the result that they cannot thereafter make it come right with the metal parts, and there is one good blank and a lot of time wasted.

Two of the photographs herewith show the stock for the Model 53 Winchester after all the metal parts had been completely let in, but before any other work had been done on it, and show it in this four-square condition as it should be. Notice particularly the position of the butt-plate with reference to the blank of walnut. The butt-plate is in line with the barrel as it should be. If I had gone to work and shaped up the stock before I let in the upper and lower tang I should have been forced to place the butt-plate on the end of the shaped up stock, and as a result it would have been about an inch out of line, and absolutely unsatisfactory.

Moreover, if you leave the blank thick and with square corners as long as possible, you have no trouble in holding it firmly in the vise while you work, you have straight lines and square corners to guide you in getting things straight while you work, and a slip of a tool at this stage is much less liable to injure anything. Also the stock is very much less liable to split and spoil everything while you are working.

The upper and lower tang surfaces of the wood were first made absolutely square and cut about one-eighth of an inch more wood between them at first than they would have in the complete stock. Then on these surfaces the cuts for the two tangs were carefully drawn with a pencil, using the old stock as a guide and reference, but these cuts were drawn with about one-sixteenth-inch less clearance all around than they would be when completed. Thus when cut out with the chisel they were a little bit too small. Then I proceeded to cut most carefully to enlarge these cuts to just the right (*Continued on page 19*)

Winchester Model 53 rifle with new stock completed.

Some Cheap Fun with the .32-40

By F. C. Ness

IN the first place, the gun itself was dirt cheap. I mean only that the cost to me was nominal—six dollars. The firearm was O. K. in every respect, for it was made by a first-class American maker who had a reputation and a prestige to protect. Besides. it was in first-class shape. This .32-40 lever-action had a 26-inch octagon barrel and a full length magazine.

You all know the various stages of ecstacy the gun bug experiences with a new acquisition, first trying one thing and then another with the new gun, until his ideas toward it undergo a complete change. That is what I would pass on here, for I had a wealth of fun with this particular weapon with a very trivial outlay of cost. When everything is considered, it was abso-bloody-lootly a bargain!

My previous experience with a similar gun of this caliber, had instilled me with quite some misgiving. And no wonder! You see, I had helped a Welch farmer with his hand-loading and had shared in the consequent shooting. We melted some lead of an unknown hardness on the kitchen stove, and proceeded with an Ideal mold which was tooled to cast the regular 165 grain, .32-40 lead bullet, No. 319247. My friend was indifferent to the fluxing, the temper of his mixture, its cleanness, and to the condition of the mold. Outside of the first half-dozen bullets, which were absolute failures, we used them all, and none was in perfect or true condition.

The cases had been primed and left uncleaned, and you can imagine their badly fouled and corroded condition. They were unceremoniously dipped full of Semi-smokeless, and the bullets were forced in without sizing or lubrication. The loading tool was adjusted to crimp the case-lip heavily into the top groove.

These shells were carefully fired over a 50 yard range. Because they were weakened by the corrosion, many of them broke at the neck. I sorted out a number of the most hopeful looking samples and leaned the gun over a post to try for some kind of a group at least. The best ten-shot group at 50 yards was about six inches in diameter!

As soon as I procured my own rifle, I went through the natural step of trying it from 50 to 150 yards with the first factory ammunition I could lay my hands upon, which was the ordinary black powder load with lead bullet. Results were considerably better than those gotten with my friend's rifle and his hand loads, but it was only natural that this preliminary shooting should reveal minor faults in the holding and aiming facilities of the gun. Of course, I removed these and improved the gun to the best of my ability at once, with what sights, files, and checking tools I had at home. This time I tried it with Peter's Semi-loads and noticed an immediate improvement.

Next, to keep a cleaner barrel, I tried smokeless factory loads, and noticed the metal cased bullets were giving me better accuracy as well. I compared it with a borrowed .25-35 Featherweight, shooting both guns at 50 yards sitting. There were gold and peep sights on the short light gun, and ivory and flat-top on the long heavier .32-40. The latter made a group 3½ x 1⅝ inches; and the .25-35, one of 3 1/16 x 2 1/16 inches. Couldn't see much difference, though the longer barrel seemed to handle better for rest shooting.

I had already enjoyed myself quite some, and at the expense of only four boxes of shells. As I saved the empties and had a use for them in view, this further lessened the cost. Besides I had familiarized myself with the idiosyncracies of my gun, which was worth not a little. The groups were now smaller, *sitting*, than formerly *from rest*.

Then, I was introduced to the inclined plank rest of the local turkey shoots. I sighted in my rifle carefully at one hundred yards, and got six consecutive shots into a 2¼ inch group at 100 yards. This was the best so far, and from now on my fun increased as I participated in the "Shoots," my gun holding up its end of the game pleasingly.

Rem-UMC furnished me with some Mid-range shells loaded with 6 grains of du Pont No. 1 and a 98 grain lead bullet with one grease groove, and a very short bearing length consisting of but two bands—like Ideal No. 31950. I found this load very accurate at 50 yards and most pleasant to shoot. I wish now I had adopted it instead of the buck shot load for short range. I still have a group that was shot with this load at 50 yards sitting. It was shot by two of us—a string of three shots each. H. got a perpendicular string measuring 1⅝ inches, and N. got a ¾-inch triangle; the whole six-shot group measuring but 9/16 x 1⅝ inches. From rest and with peep sights this load must have been capable of some unbelievably close grouping.

See how this thing grows on a fellow? I became imbued with the idea I was some marksman. I picked a day when lighting conditions were uniform and favorable and stuck up the Standard American 8-inch bull. After measuring of 200 yards, I commenced shooting from the sitting position with the most accurate load I had, which was the W. C. F. smokeless and metal cased bullet. First some ragged shooting attendant upon sighting in; then a five-shot group scoring 46 x 50. Some more ragged shooting; and then ten shots which scored as follows: 7, 9, 10, 10, 8, 8, 10, 9, 6, 8—85 x 100.

Expecting to do a lot of summer shooting at short range, I wanted a load of sufficient accuracy that would be as cheap as possible. I adopted the supplemental-chamber adapter and the .32 Colt cartridge. This was not a huge success, being good for only 20 to 25 yards. The chief drawback was the jump the .32 short bullet had to make to enter the throat proper and rifling of the .32-40 barrel. This made it impossible for the smokeless powder to burn properly in the small charge and caused uneven velocities. Some shots would go six inches high to spoil the main group. I used a sling and sand bag rest, shooting from prone at 50 yards to see if I *could* get a group with the combination—the smallest one measured four inches. I had no trouble with fouling.

Experimenting with peewee loads has always held a strange fascination over me. I usually resort to it at one time or another with all my guns. In the .45 Colt I have tried hundreds of loads with light bullets weighing from 144 to 190 grains. Even when I once owned a revolver shooting as light and pleasant a charge as the .32 S. & W. Long, I sent for some buck shot for a still lighter load. These were never tried out, because the revolver was stolen from me before the 47 grain round balls, No. 31358, arrived. It was only natural then, that I should now turn to buck shot for a short range load in the .32-40.

I had some black and Semi- of F. F. G. granulation, a few cleaned and primed shells, and a number of No. 5 buck shot that weighed 49.2 grains. I used the charge cup half-filled with Semi- in the first six loads, which, of course, caused uneven charges, and seated the buck shot deep on top of the powder charge. At 35 yards from rest this load shot without a bit of lateral deviation, but the uneven velocities made a six-inch variation in elevation. The following six were loaded with the charge cup level full of du Pont black to get the charges more even, and a patch greased with vaseline was used on the balls seated at the mouth of the shells to obtain uniform combustion. This load showed a constant velocity, for there was practically no vertical deviation. However, the accuracy was not so good, there being a six-inch horizontal dispersion in this case, which was due either to the patch or two much powder. These round balls are so light and have such a negligible bearing surface that it is easy to get in too much powder, which always makes them jump the rifling and causes them to strip on the lands.

Accordingly, I sent for a supply of the 49 grain round ball, No. 31951, which have a diameter more suitable to the bore of the .32-40 and can be more conveniently seated (without patch). It took the Ideal people over a year to fill the order, as things were in a chaotic condition at that time. In the meantime I equipped the rifle with a Marble's flexible tang sight with a peep disc, and, because I wanted some more cases for reloading, I bought and tried the High Velocity load at long range. Some of these were shot

at 240 paces from prone, using a sand bag muzzle rest. I got one five-shot group measuring a shade under 1 x 2 inches from hole centers. This was due to the efficiency of comfortable rest and the peep system of sighting with a shaded pin-head front. Because of this and in anticipation of my forthcoming try out with the buck shot loads, I builded me a five-point rest down in the pasture, and erected a backstop target butt exactly 50 yards away, out in front. I now merely had to wait for the 49 grain balls—and a long wait it was!

Groups of only five shots are often misleading in that they do not *always* tell the *whole* truth, for they may be just lucky, or "flukes." Every *one* more shot, were it fired, might enlarge that group considerably. However, the five-shot group is af value in first determining the *apparent* accuracy of any unknown load or combination. When the shooter has found a load that *seems* to have the required excellence, then it is time enough to try the thing out more thoroughly with a longer string.

You will note that there was a steady progression of improvement in the accuracy of my rifle as I became accustomed to it, improved the sights, and changed ammunition from the careless farmer's hand loads to the factory black powder, to Peter's Semi-, to factory smokeless loads at their respective ranges. These compared favorably as follows: the .32 Short Colt at 20 yards, the 98 grain (lead) at 50 yards, the W. C. F. smokeless 165 grain (metal cased) at 100 yards, and the W. C. F. High Velocity at 200 yards or over. Of the latter, part of the merit, at least, was due to the superiority of the metal patched bullet over the lead missile of the same weight.

Now my problem was to develop a cheap load with sufficient accuracy at short ranges up to 50 yards for squirrels, sparrows, gophers and tin can shooting. Any one who has carried on such experiments can testify there is plenty of fun in it. To establish a precedent with the gun and sights I expected to employ in the test, I fired a five-shot group from the five-point rest with W. C. F. smokeless metal cased. This group measured 1¾ inches at the 50 yard range. I also had .22 caliber Stevens Favorite with the same sighting system, and I tried five ten-shot strings under the same conditions with four different makes of Semi- and Lesmok long rifle cartridges. The individual ten-shot groups ran from 1¾ to 2 5/16 inches, the fifty shots giving a mean group diameter of 2.1 inches. These results gave me something to go by.

For handloading the round ball, I used the No. 3 tool with d. a. chamber and special seating screw. Since I had no scales (and none was needed for this job) charges were thrown by table using a No. 6 powder measure. Both Nos. 2½ and 2½W primers were used with black, Semi- and both dense and bulk smokeless. Peter's, Winchester black powder, and W. C. F. smokeless cases were all tried, finally using none but the latter. Vaseline and a hard oil containing graphite were tried, but all lubrication was finally dispensed with as unnecessary. Balls were seated deep and loose upon the powder, flush with the case muzzle or protruding and held friction tight by the shell lip of the resized necks. A five-shot group was tried with each loading method using the same charge of powder. Finally the protruding method was adopted as the best. Powder charges were varied in amount and tried to find the best load for each brand, also they were tried with and without a priming charge, which was finally eliminated from consideration as a needless bother. Bullets or rather, the balls were used naked. No fillers such as cotton batting, sawdust, or Cream of Wheat were used. Wads, both greased and dry, were tried and discarded as worthless. Semi- and black powder were too dirty in the small charges, and Bull's-Eye left an obstinate residue that required several cleanings at day intervals before the rifle could be safely set aside. Results panned out as follows:

BLACK POWDER

D slide at 8 gave 5-inch group; at 7, 4-inch; at 5.5, 3¾-inch; at 5, 3½-inch.

KING'S SEMI-

3.5 grains to 6 grains tried—5.5 grains best; D-slide from 6 to 9. 5 grains gave a 15-shot group of 3½ inches.

Both of these powders were too dirty, both as to gun and cartridge cases.

BULL'S-EYE

1 grain Semi- and 0.5 grain B. E. gave 4-inch group; and 1.0 grains B. E., 5½-inch; and 2.3 grains B. E., 3⅛-inch; and 1.8 grains B. E., 3⅛-inch; and 1.8 grains B. E., 2⅛-inch.

The small charge left too great a space in the .32-40 shell, and had too great a fouling propensity upon the bore of the rifle.

SCHUETZEN

2.5 grains gave groups from 2¾ to 6⅝ inches; too great a variation. Wads, lubrication, and varying seating depth were tried and dropped. Range was moved up to:

SCHUETZEN (AT 35 YARDS)

3 grains gave groups of 2¾, 2, 3, 2½, 2¾, 3, 1⅝, 2⅜, 2, and 1⅛ inches. 4.5 grains gave a 1⅞-inch and a 3-inch group. 6 grains gave 2⅝-inch group.

Too many squibbs, which spoiled the groups—decided to try priming charges.

PRIMED LOADS

2 grains du Pont F. F. G. black and 3 grains Schuetzen gave 3½-inch group. 1.5 grains du Pont F. F. G. black and 4 grains Schuetzen gave 3-inch group; and 5 grains Schuetzen gave 2-inch and 3-inch groups; and 1.5 grains du Pont F. F. G. black with unseated ball gave a 9/16-inch group. 1 grain King's F. F. G. Semi- and 0.5 grains Bull's-Eye gave 4-inch group.

du Pont F.F.G. Black	No.80	Group
1.5 grains	4.0 grs.	4¼-inch
1.5 grains	4.7 grs.	3⅝-inch
1.5 grains	5.2 grs.	3-inch
1.5 grains	5.2 grs.	2¾-inch
1.5 grains	5.8 grs.	1½-inch

HUNTING TEST (50 YARDS)

(Prone, uphill ground)

1.5 grains King's F. F. G. Semi and 5.2 grains No. 80 gave a 6-inch group; Stevens Favorite and U.S. NRA .22 caliber gave 2¾-inch group

(Sitting, level ground)

1.5 grains King's F. F. G. Semi- and 5.8 grains No. 80 gave a 3-inch group; Stevens Favorite .22 caliber gave a 2-inch group.

DU PONT NO. 80

From five-point rest 5.2 grains gave a 1¾-inch group; 4 grains gave 1½-inch.

This powder gave no squibs when properly handled.

The best loading method was to seat the ball protruding, just deep enough to be held friction tight by the resized shell neck. I found by avoiding too much tension on the magazine spring they work well through the mechanism of the rifle. This was accomplished by placing only three cartridges in the rifle at a loading, which is a sufficient number of shots for aerial target practice and squirrel hunting. The most accurate experimental load was with 5 grains Schuetzen and 1½ grains black priming, with the ball placed on top of the shell and shoved thus into the chamber. But, of course, this load is no good for practical use.

The most practical loads found were: 2 grains Bull's-Eye, 5 grains Schuetzen, and 4 grains No. 80. The dense powder occupied too small a portion of the big space in the roomy .32-40 case to be desirable when other powders could be had. Besides this it seemed to leave a very active residue which was hard to clean out. Black and Semi- fouled the barrel too quickly and sooted up the cases. Schuetzen was the powder recommended to me for this purpose by the du Pont people, but it was too sticky and gummy. It would stick along the walls of the case and cause squibbs, or shots of light report and low power that would land below the group proper. Priming charges were not worth the extra bother their use entailed. Carried in the hunting pocket, the two charges would mix with varying degrees of thoroughness, and cause irregular shooting. With all the loads above a filler should be used on top to hold the powder in place against the primer. Du Pont No. 80 gave the most uniform results, on account of the absence of squibbing. This powder is dry and hard and would quickly slide back in place next the battery cup when the muzzle of the rifle would be titled slightly. Four grains of No. 80 was the charge I adopted for hunting.

We used this last load exclusively on tin cans and such pests as English sparrows and gophers during the summer months, and on squirrels throughout the hunting season. Results were noticeably better, when the gun muzzle was held rather high, as in shooting up hill, at tin cans or small objects thrown up, or at squirrels in trees. I killed fifty squirrels with fifty-one shots the first fall. The load was almost ideal for this purpose. The balls of .319 diameter were sure killers; they seemed to have just enough velocity without going through the squirrel; and no meat was mutilated by head, neck or shoulder shots. Being round they would not glance, ricochet, or whine off through the air like the NRA .22 Hollow Point.

The shooting of this gun filled with pleasure the bulk of my spare time for a period of two years. The total cost, including gun cases, reloading tool, primers, powder and balls used was around fifteen dollars, and I finally sold the outfit for nearly twice that much.

The American Rifleman

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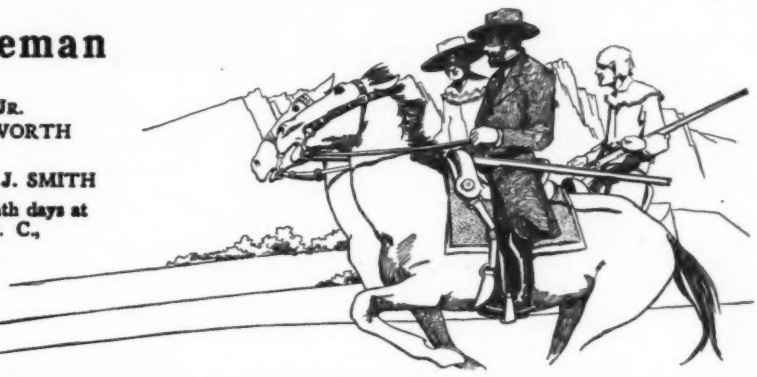

★ LONGS EXPEDITION. 1820

With the adoption, in 1819, of the Sabine River as the boundary line between the Spanish and American possesions all cause of disagreements seems to have been settled. However, discontented minorities among the American settlers refused to accept the adjudication of the commission and revolutionary movements were set on foot before the ink on the treaty was dry. Among the best remembered and most signally unfortunate for its leader was that of Dr. James Long of Natchez, who organized an expedition, occupied Nacogdaches and proclaimed the Independence of Texas. The provisional government of Long blew up and Long himself went as a prisoner to Mexico City, where he was stabbed to death by a soldier. By 1822 Texas had been practically deserted through the incessant disturbances.

IN producing several types of Springfield rifle at variance with the "as issued" weapon, the Ordnance Department has taken one of the surest methods of insuring to the nation, in time of emergency, markmanship instructor personnel which can be whipped into usable shape in a minimum of time. No man who owns a Springfield specially stocked rifle, or one of the match or .22 caliber types would experience any very great difficulty either in doing effective work with the "as issued" arm or in teaching its use to recruits. If men are to continue to use hunting arms—and they will as long as there is any game left to pursue—it is therefore distinctly to the advantage of our system of National defense that those hunting arms are similar to the Army weapon.

Special Springfields

* * * *

IN the wild days of the west it was perfectly feasible for bandits intent upon bank robbery or holdups to roam the roads or enter the border towns armed with rifles. Today the appearance on the streets of a city of a man carrying a long gun, even though he be going to a rifle range for practice, focuses attention upon him and makes him a marked man. Therefore the hand-gun and the sawed-off shotgun, are the favored weapons of the lawbreaker, and as long as the officers of the law limit their armament to similar weapons, the battle between sheriff and crook so far as effective range is concerned, is a standoff. But out in Ohio a few months ago, a rifleman was injected into a man hunt. Thereby not only hangs an interesting tale but a very cogent reason why rifle clubs should be organized among the law officers of every community.

Man Hunting and the Rifle

A bank hold-up had been successfully staged by two bandits and a get-away made by auto with the Sheriff and his deputies in persuit. The Sheriff's car was faster than that of the bandits, but the law officers were prevented from overhauling their quarry because every time they would attempt to close in the bandits would open fire and under cover of their fusillade would gain a fresh start. Across country the race continued until, as the Sheriff's car passed a woodlot, out stepped a youngster with a Springfield which he had been targeting in preparation for a hunt. The Sheriff was suddenly inspired with the idea that here was a factor which would break the deadlock. He explained the situation to the rifleman, who willingly hopped into the car and the chase was on again. When they sighted the escaping bandits, the young rifleman opened fire. His first bullet tore into the body of the car ahead, serving notice that the Sheriff's men had the range, and puncturing the gasoline tank. Aware of the damage that had been done, the bandits turned off the road into a strip of woodland, abandoned their car and took shelter behind trees to fight it out. But the Sheriff's party took cover out of effective hand-gun range, and down on his stomach went the rifleman, and taking aim at the exposed leg of one of the bank robbers he let drive. The bullet found its mark, making a wound from which the bandit bled to death before he could be gotten to the city. His companion ran for it, but one of the rifleman's bullets through the arm disabled him so that he surrendered. That Sheriff will go on no more man hunts without one or more riflemen in his posse.

* * * *

THE sophistry of human reasoning seems to persist through all the ages. Just now there are all too many of the unthinking among reformers who blame the prevalence of homocides and crimes by violence upon the pistol and revolver. Turn now to Robertson's "Religion of the Semistes" and read what he says of Ancient Athens:

"The annual sacrifice of the Diipola, where the victim was a bull, whose death was followed by a solemn inquiry as to who was responsible for the act. At this trial, everyone who had anything to do with the slaughter was called as a party." Robertson relates how the responsibility was passed by each of those concerned to another until it finally came to the man who actually cut the bull's throat. The executioner in turn blamed his knife which was accordingly found guilty of murder and cast into the sea.

Page Magistrate McAdoo

Is it possible that the presiding justice in these trials was named McAdoo?

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"Now Them Lugers—"

By Louis V. Manning

BY careful repacking of pistols and revolvers in my valise, I made enough room in it to pack away a new handgun: I immediately thought of Shadrach, Meshach, and Abednego, who live in the mountains. Shadrach has shown me both the porch and the rock which he used to shoot from the porch, and hit once out of three shots, with his Luger. As he was unable to duplicate this feat with his carbine, and had loaned his Luger to a man who lived near Fresno, he was very sorry that he could not show me, but I had his permission to blaze away any old time I thought my Winchester would reach that far. Meshach took me right out where he used to stand and showed me the highest limbs in the tallest trees, where the woodpeckers hopped around as he knocked their heads off: he would have been very glad to show me, but he had sold his Luger to the fellow who ran the mail-stage back in '20, and the fellow had disappeared. Abednego used to go to the turkey shoots, and wait until every thirty-thirty had been shot; then he'd take his Luger and win the turkey. He showed me the feathers. He was more than willing to loan me his Luger, but he had lost his Luger a couple of years ago. So, out of consideration for the opinions of Shadrach, Meshach, and Abednego, as well as of Tom, Dick, and Harry, I decided to make the hardware from Hartford and Springfield move over and make room for a German, and wrote for a catalog.

By return mail, there came a printed demonstration of *The World's Most Accurate, Hardest Hitting, Farthest Shooting Pistol:* I was entranced.

"By having barrels for both the 7.65 mm. and the 9 mm. cartridges, you can use both by simply changing the barrels." There's efficiency for you; many of you no doubt remember that our American revolver firms advertised the advisability of having a revolver that shot your favorite rifle ammunition, at one time, but the German is more far-seeing. He has built one arm that will shoot not only two sizes of cartridges, but apparently any thing it will chamber, for the book says further:

"What crazy things they have not tried to do in these tests is hard to say: shooting the gun with a double powder charge and a tight-fitting lead slug six inches long: double powder charge with the barrel jammed full of the stickiest clay: the barrel filled with snow and ice; shooting the gun under water." The advantages are more than apparent: in case the ammunition were exhausted, the arm would discharge anything that could be gotten into it, and under any condition; I read further:

"If you feel like duplicating any of these tests, bear in mind that you and your arm might be damaged beyond repair. We recommend the use of standard factory loaded ammunition." That, of course, is reasonable, for no one can tell what a crazy hand-loader might do.

"All models can be equipped with telescopes." That is indeed an innovation in pocket pistols.

"100-shoot magazines for the Luger." Removing at once the annoyance of carrying loose cartridges in the pocket, for two entire boxes can be put into the magazine. The effect on the balance of the arm is something to be imagined.

"— firing 200 shots a minute." The .45 automatic is unquestionably slow: my friend G. Dudley was able to hit an enemy soldier but twice before the soldier fell; think what George might have done if he had shot with the other fellow's Luger.

These advantages, of course, are in the nature of mechanical refinements, and ballistics are more to the point. I found that their superiority ballistically rested in their penetration range, according to the book. By taking a quiver, containing barrels of 7.65 mm. and 9 mm., of varying lengths, one is able to obtain fifteen-yard penetrations varying from ten to sixteen boards, ⅞-inch pine, a fine thing if one is hunting lumber, and ranges of accuracy from 300 to 900 yards: as you all know, Colonel Colt and Messers Smith & Wesson always mistook the 900-yd. firing point for a portion of the rifle range. The book said further:

"At 900 yards the 9 mm. Luger bullet will penetrate the skull of a horse." Therein lies a poignant appeal to the killer in the stockyards who finds the odor of the slaughter-pen unbearable.

These statements, of course, are the ones of the man who has the Luger for sale, and everything printed on the label is not always true, unfortunately, so I turned to the page of testimonials. One gentleman wrote:

"I broke six quart bottles at 75 yards. They were the first six shots fired from the Luger." I realized then how badly I had been swindled, for the first six shots fired from my .22-32 were six obscene misses of a quart can at 20 yards, but, as Shadrach, Meshach, and Abednego put it "them Lugers."

"I killed a large buck at 228 yards with one shot from my eight-inch 9 mm. Luger. My wife, a little woman of 110 pounds, can hit empty beer bottles at 100 yards off-hand, with this same Luger." My family often go hunting around the kitchen stove, and many times my grandfather has killed a buck by word of mouth with a .44-40 Winchester, even at 228 yards, but with a pistol —! However, there are two drawbacks: my wife weighs over 110 pounds, and beer bottles are scarce.

"I killed three jack-rabbits out of five shots at 250 yards with my twelve-inch Luger." The drawbacks began to thicken, for it has been my experience that 250-yard pistol shooting has little to recommend it. About two years ago, I missed a standing coyote, at about thirty yards, with a Savage .32 pistol; I missed him running, at ten yard intervals for ninty more yards. From a hundred and twenty to a hundred and fifty yards, I changed magazines, and missed him for ninety more yards. Somewhere between two hundred and fifty yards and one thousand yards, he stopped to laugh at me: I set my teeth to the job, shot and killed him. But the expense of getting him out to that range was appalling:

"That Luger I got from you is a wonder: have made several fellows with their .30-'06's look sick at 550 yards." That settled it. I am not a damned bit ashamed of what I can do at 550 with the Springfield: if I got a Luger, the only way that I could keep from nauseating my self at the range would be by having the action and chamber of the Springfield cut down to handle the Luger cartridge, and that is too expensive. I have to compromise. After swallowing my regret, I have decided that the cheapest and most sensible way of filling that vacant place in the valise is to send the D. C. M. about $16.15 for one of those bum guns made by that botch outfit in Massachusetts. But I'll take it for a philosopher.

My friend Carlisle was a philosopher. As he hung his legs out the side of a Frog box-car and regretted that he was not a Cheveaux (en long), he remarked:

"The closer I get to those Dutchmen, the less chance they have of hitting me with that seventy-five mile cannon."

A Hunt Into Ladakh

(*Continued from page 5*)

him. The next was through the body, just back of the shoulder.

We traveled along the south shore of Pangong Lake for two marches, on our way to a bit of ammon country. It was much the same as Changchenmo, except that there were a few villages with their irrigated areas. I was interested in finding mosquitos, and very hungry ones too, at an elevation of 14,500 feet. This was near a small marsh, which in itself was unusual for that country. It was the first time I had ever met these little pests at such an altitude.

We found no good heads, though we did see altogether about a dozen ammon in that district. I wished to get back to Leh quickly, in order to reach the Hemis Lamasery, near there, for a performance of the "devil dance," so I pushed ahead, leaving most of my outfit to follow more slowly. It was quite a trip, my longest day being sixty-six miles. I arrived in time to witness the dance, however, which was well worth the effort.

The "Devil Dance" is a religious ceremony of the lamas, the idea being to depict the dangers and temptations that are supposed to beset the soul on its journey to heaven, the *nirvana* of the Buddhists, and the final triumph of religion. It is a weird spectacle. Huge fearsome masks are worn by the dancers, representing devils, who wheel and gyrate about, to the sound of chanting and the noise of drums, cymbals and horns. There are several parts to the dance, which lasts two days, broken by periods of service within the lamasery. People come from considerable distances to witness these dances believing they thereby acquire merit.

Notes on Stock Making

(*Continued from page 14*)

size. The tangs of the receiver were coated with mechanics' blue, and the receiver was repeatedly fitted by pushing it back towards the butt of the stock into the tang cuts in the walnut, and carefully, slowly, and gradually enlarging these cuts with minute shaves with a sharp chisel, until finally the receiver went home precisely with a good fit into the walnut. The butt plate was fitted absolutely vertical and in line with the barrel. After this I shaped up the stock, first with the hand axe (a bad tool, use draw knife), then with the rasp, then file, and finally with sandpaper. The stock was then thoroughly wet, quickly dried over the stove, and the raised wood grain was again sandpapered off. This wetting, drying, and sandpapering was repeated until the grain no longer rose up when wet. Then the stock was polished with linseed oil rubbed in night and morning for a week, and the job was completed.

Winchester Model 52 rifle with amateur stock made by Mr. Thomas J. Imler.

The finest piece of amateur stocking that I have seen is that done on a Winchester Model 52 rifle by Thomas J. Imler of Tucsen, Arizona. Two photographs of it are shown. In shape, contour, and dimensions it is exactly right, while the fine workmanship on it makes it a work of art as well as of utility. Mr. Imler has kindly given me the following notes as to how he made this stock. Notice particularly that while he cut out the stock in profile at the start with a band saw, he did not cut it out in conteur until he had it finished in every other respect, and that he preserved the center line along the top and bottom edges of the stock as long as possible to measure from, and to line things up by.

"My belief is that the first thing in the production of a gun stock is the same as in any other work where skill, principal, and art must go hand in hand, together in the work is a drawing or a model to work from so my first step in the production of this stock was to draw a profile pattern to fit as nearly as possible to my ideas of beauty, not sacrificing the proved elements that must be adhered to for accuracy of the completed product, taking all the advantages of my profession of designer and artist in this respect.

"This pattern I transferred to the walnut stock blank, taking great care in sawing the pattern accurately for the profile of the stock was not changed in the least when the work was finished.

"If the sawing is not done with a band saw the variation in angles that will come by using a hand saw is liable to throw the holes drilled through the stock at different angles which will result in a bad fit.

"Then a line was drawn entirely around the stock exactly in the center to measure from each way, as well as to assure that the guard screw holes are correctly bored from top to bottom. The hole is bored for the front guard screw next, and from this I took my measurements from all ways. In other words this I used for the starting point.

"The pattern for the trigger guard and magazine case was made which I transferred to the blank by placing the front screw guard hole in the pattern over the hole through the stock. Next the mortising was completed and the guard fitted. Then the profile pattern of the barrel and action was made placing the front screw guard hole in the pattern over the front guard screw hole in the stock and transferred this pattern to the top of the blank.

"From this time on I used only a half round chisel, a flat chisel, a wood rasp, some sand paper and lots of patience.

"Placing the barrel and action in this stock frequently to assure the proper fitting, using Prussian blue (paint) on the barrel and action to indicate where the cutting was needed. I made my own checking and engraving tools from illustrations secured through THE AMERICAN RIFLEMAN, making the designs for checking to suit my own ideas.

"A linseed oil hand rubbed finished was used in the finish of the stock."

A well fitting stock means a whole lot in getting good results with any rifle. It will greatly improve ones marksmanship, particularly in the standing position and in rapid fire, the two ways in which a hunting rifle is mostly used. The making of a stock is not a difficult job, particularly if one undertakes a simple little job like the restocking of this .32-20 Winchester first before undertaking a bolt action rifle. "Amateur Gunsmithing" gives full directions, and a very great many amateurs have made fine successes of stocking jobs by simply following the text and instructions therein. It would be well, perhaps, to cut this article out and paste it in the back of the book.

A Catalogue Dream

(*Continued from page 10*)

special dispensation of Allah or Providence, depends whether you regard the Koran or the Bible as ahead of the Catalogue.

But the 375, being only an elephant tickler, is a gun and cartridge with which every one can enjoy target shooting while the guides are herding in another bunch of bears. There is that imaginary fact about the Swiss soldier with his two cartridges and two Germans—Well, two 375's and two grizzlies is the answer. Count your cartridges and you won't have to count your bears. One is enough. I laid down and shot it, not shot it and laid down. That is reserved for the 505 Hoffman when I find a soft spot and the grass is up. The 375 is practically the 35 Newton, about the difference there is between the 30-30 and the 32 W. R. A. Special cartridges. It all depends on how they are stuffed—I know what's in the Catalogue. Never mind. By the way, if one aches to he can brush out his 38-55-300 two caliber Hudson old Schuetzen mold and it will make the 375 into a 38-55 on the spot. It all depends on how you load it. And you know what the 38-55 is for accuracy. Fact is, it is nearly as accurate, the 38-55 sub load and the 375 full official one, as any first class gun Catalogue. Except that the catalogue isn't accurate and the 375 Hoffman is heap accurate, with plenty of authority when it gets down there.

Now for the nose dive and supper. If you are poor and busted, with only a few millions, debts not dollars, there is just one cartridge, mabeso alsame two, to talk Injun a bit. The 30-40 and the 30-30. One is the abridged edition of the other, and equally accurate. Don't stuff that soft brass till it swells up like a poisoned pup, be moderate, and the empties will last a long time. No danger of the brass developing a wandering streak and squirting back through the action if Mr. A. Neal neglected his work. Mattern can fix you up with mighty good discards. Divide the cash between him and the Express pirates, it goes about fifty-fifty. Cheap enough. You can resize with a hand vise or a 1894 W. R. A. tool right in the kitchen when the Missus is visiting Ma but not when Ma is visiting her. And with either one of them, the 30-30 or the 30-40 handloads, not factories, you can worry the Springfield crowd a whole lot. It takes a pile driver and a pipe puller to re-size the Springfield cast iron empties, not worth the trouble and blisters unless you can belt on to a helper engine, or the garage man lets you monkey around his place. Which is seldom the case, both cartridges are better than the guns that shoot them. With the Springfield it is the reverse, the rifle is better today than its antiquated '06 load.

But there are no lions left along the Hudson and the Platte, and if you killed an elephant they would have you arrested right there in the tent. The point is, read the catalogues and other newspapers, *but go shoot the gun.* We will now wake up.

Bullet Experience on Game

(*Continued from page 2*)

shoulders and penetrated both lungs, going clear through the goat and out of side. Goat went over a little hill out of sight.

I ran to top of long ridge that ended in cliffs nearly three miles away. Ran along the top of this ridge with the goat going parallel below me. This country was all burned over, and could see my bullets kick up dust or ashes on off side of goat. I missed next two shots at about 150 yards running, then goat stopped and I hit him last shot, knocking him down for the first time. He got up and over the hill while I was loading up. Ran him about a mile before I got another chance. This time about 300 yards down hill as he was crossing a little hollow. First shot fell way low. Held up about half of front sight over his back and heard next bullet plunk. It knocked him over. Knocked him over once more out of this gun full of shells. Was sitting with back against tree and gun between knees. Was puffing from the run until I could not hold any other way. Loaded up and ran goat nearly to cliff before I had another chance. Then was within 30 yards of him. Sat down and took my time and tried to break his neck. I hit neck all right but missed the bone. Knocked him over but he was up and going in an instant. Ran a little more and put two more bullets lengthwise clear through him. Both came out chest. These stopped him. I worked around to side and tried to hit heart. About 60 yards missed clean, so ran up to about 30 yards, and put last two through him. I think both hit heart, as there were two holes through it broadside. Both knocked him down but each time he got up and after my last shot he went down hill about 150 yards and laid down behind a burned snag. I knocked him on back of head with little Marble's belt axe and finished the job.

After examining him I found a hole through outside half of right hind foot, so hit 10 of the 18 shots I fired at him, one through foot, three lengthwise through him, one through neck, two broadside through heart and three through lungs broadside.

The bullets did not tear, just punched a 40 to 50 caliber hole. And only first one stopped in him as I could see ashes and dust raise from the others. I see Major Whelen credits the goat as being one of our toughest game animals. Believe he is right unless the coyote. But the coyote is too small to be compared with the goat.

And old bull elk nearly ended my hunting in Montana in 1919. Shot him through neck broadside with Springfield and 220 grain soft nose, missed bone and bullet lodged under skin on off side. The old fellow dropped like he was dead and kicked and rolled down the mountain about 50 yards into a hole where a big spruce had uprooted. When I went up to him, I could not see his eyes as his head was doubled back under him and deep down ground. So being younger and a little more foolish then than now, I prodded him in top of shoulders with muzzle of rifle to see if he were dead. I got results instantly. The brow points caught me somewhere near pit of stomach and I landed about 15 or 20 yards down the hill, on my back and half covered with snow. Lost track of the Springfield for time being. My .38-40 S. A. Army was up under my right arm pit, belt around my chest. Got hold of gun and bull was jumping up and down with his feet bunched where I had been much like a sheep killing a snake. Believe he was still dazed and could not see me. When I cocked the six gun, however, he whirled around and faced me. I tried to hit his forehead, but landed a little high between base of horns, as I afterwards found out. The .38-40 Remington soft nose low velocity spread to the size of a quarter on the skull without even denting bone. The elk just shook his head and came for me. I shot again when he hit the snow. This time with black powder, lead bullet. It struck almost between eyes and too low for brain but went clear through to jaws. Bull dropped about same as a beef when shot in brain. I got up and supposed the old fellow was dead, reloaded my six gun, and got the Springfield, cleaned snow out of action and was walking around the old bull looking him over and thinking what a nice head I had and how lucky I was to stop him. I thought I'd make sure he was dead before looking at his teeth. His head was under snow, so poked him in rump with my foot. He lashed out with his hind legs and knocked me over and jumped up and started to run off. I dropped the rifle when I fell, so grabbed the six gun and started shooting as fast as I could bring sights on him and work the gun. First shot hit left beam (Remington soft nose). Went half way through and expanded. Next two landed in hams and fourth one broke his back about half way between hips and shoulders. That let his hind quarters down. Then he started dragging himself towards me with his fore feet making a sort of clicking noise (with his teeth I think). His hair all turned on end and on back of his neck like a dog's. I took my time and broke his neck last shot I fired. I spent nearly a quarter of an hour throwing snow and sticks at the old fellow, then before I had nerve enough to venture up again.

Had my partner, Capt. W. R. Strong of 363rd Infantry, killed in front of me for an elk the next day, October 19, 1919, while we were cutting trail out from this bull for the pack horses.

I once shot an old cow elk at about 60 yards, facing me with a 250 Savage lever action, 87 grain soft nose. Hit her square in neck and bullet went to pieces, part of it going into lung cavity and breaking two ribs the rest coming back out brisket. Blew up before it ever got near neck bone. Should have broken neck. Anyway it dropped her but she got up instantly. I next shot her broadside through neck, cutting both jugular veins, although I did not know it at the time. She went down again and likewise got up again. I leaned the rifle against a big spruce and taking the .32-20 S. A. Colt in both hands shot her in forehead, killing instantly. I had walked up each time she went down from Savage so was only 35 or 40 yards when I shot her with six gun. No one can convince me that the .250 Savage with 87 grain bullet is big enough for elk. I killed three blacktail deer with this same rifle and load. All three taking two shots each. Sometimes it will go through an animal sometimes go to pieces soon as it penetrates the hide.

The S. A. Colt may be a bit heavy to carry especially when also carrying a rifle, but for my part I will always feel better if I have it along. If I had left that .38-40 Colt in camp in 1919 I would not now be here and its doubtful if my friends would ever have found my carcass after the elk had finished tramping me to pieces.

Have two fine .45 S. A. Armys, one 4¾ inches one 5½ inches and believe them the best six guns one can pack for the hills. Have no use for these modern smokeless squibb loads in the peace maker. The old .45-40 black 255 or 260 grain load suits me best for all around use. It will not tear a grouse or rabbit bad and will give better penetration on heavy game than any six gun load I've ever tried. Write when you have time. Am tired writing for one time. Sincerely,

ELMER KEITH.

Eleven Years' Activity

(*Continued from page 13*)

from the sale of these cards more than paid for the medals.

We had three qualifications under Course "A", the result being the registering of ten experts, three sharpshooters and three marksmen, a total of sixteen.

Some of the principal events of the season were a club Championship match over four ranges, in which the members competed for a gold, silver, and bronze medal, a Members' Match over three ranges for a bronze medal given by the N. R. A. The President's Match, a handicap over three ranges, for a gold medal, was perhaps the most popular and closely contested of all the events. Including the winnings through the medal cards, qualifications and matches, there were distributed among the members medals to the number of thirty-three.

The foregoing were but a prelude to the final event which was put on with many doubts and misgivings as to the outcome. We felt the season would not be complete unless rounded out with a turkey shoot and accordingly preparations were made for the affair to take place on a Sunday preceding Thanksgiving. The day was cold, gloomy and windy; the weather, however, did not deter the enthusiasts from coming. They appeared early and stayed late.

The range was 200 yards off-hand using the "A" target. A three-inch white square in the center of the bull being the objective. Each shot hitting the white square entitled one to a turkey. We placed three targets for the turkey shoot at twenty-five cents per shot and two targets for practice and sighting in at five cents per shot. A limit of three turkeys to a person was the rule but was not needed as no one reached the limit;—any gun and any sight without glass was permitted. The guns

represented at the shoot dated from the antique to the present-day service rifle.

Two hundred and ninety shots were fired for practice by those who came assured of getting a turkey. Two hundred and seventy-five shots were fired at the turkey targets by those who hoped to get a turkey. Eight birds fell to the expertness of those able to hit the square.

One heartless wretch, a mercenary person with the dexterity of an expert and the luck of the evil one deprived us of two turkeys in four shots at the price of one little iron man. This unfortunate occurrence was happily offset by the record of a friendly young fellow, an enterprising and most persistent individual, who cleverly won his gobbler on the nineteenth shot. The receipts were $83.00, expenses $40. Net profits, $43.00.

Taking it by and large it was one wide, handsome day for the treasury and a good time was had by all. We must qualify this by saying with perhaps the exception of one as this shooter on his twentieth shot, through the irony of fate, fired on the wrong target, hit the square, and with chagrin heard his neighbor, a man who had hitherto consistently missed his target, jubilantly claim the turkey. The shoot was of so much interest that we were petitioned to hold another approaching Christmas, but the bad weather precluded any further outdoor activities of a general nature.

In addition to our regular events, we have decided to include other features this coming season, such as club matches, team matches and shoots for merchandise prizes, as we find, to stimulate interest, some award must be in view to create rivalry and strong competition. The gun crank will go out alone if he must, or in company if he can, for the pure joy of exercising his skill; but the ordinary individual needs some incentive to induce a semblance of regularity in his attendance.

Although we have devoted ourselves particularly to the long ranges and the .30 caliber, we have not lost sight of the advantages and pleasure of revolver practice, and indoor small bore shooting. During several years we had the use of the Armory one night the week, but after the winter of 1923 we were excluded from using it due to neglected repairs; and the only practice since then was by individuals in their basements during intervals between firing the furnace, or in their attic after attempting to tune in on Mars with their crystal set.

While we had the use of the Armory we did rather good target work, reporting to the N. R. A. a few favorable scores and gathered in a little marble money. During this period our ancient and honorable Secretary, Clay Boys, (who by the way has persisted in usurping the job for ten years, despite the loud and continuous noise made by others who wished to undertake his work, and enjoy the honors and emoluments of his office)—through big medicine, Old Boys' tactics or some hocus-pocus manipulation of his little pop gun fetish with the glass eye, succeeded in 1923 in making the sixth high score of all N. R. A. contestants throughout the country. Not so bad for the ancient and honorable, and incidentally for the Miami Rifle Club.

Our small bore outdoor range is located on the side line, against the bluffs opposite the 300 yard firing line, and is equipped for revolver and .22 caliber practice. It embraces ranges up to 100 yards and is well patronized early in the season, and by those able to slip away from business during the week.

Fortunately we are favored with officers who are usually on the job, and display a keen zest in the work of the club. Our President, despite tradition, is occasionally among those present. Our Vice President spends much of his time on the field and inversely expends much of our ammunition while there. The Secretary need not be specially mentioned as all riflemen know their jobs are but complimentary sinecures. The only loafer on the range, thank the gods, is the Executive Officer who if he came a little earlier on practice days to get out the equipment and tarried a little later to put away the targets and things that are left lying around; and busied himself during the week on some of the few trivial range duties, he might in time come to be considered as a promising adjutant. But being young(?) and frivolous! and a cuckoo, much is forgiven him.

Uniformity of traits in men in a rifle club, can no more be expected than uniformity in shooting. We charitably close our eyes to outstanding faults and need not criticise the minor shortcomings. We may view the lesser defections with a degree of tolerance and good humor as the absurd or the comic feature of the case may impress us.

The men in this club are all good fellows, no grouches—indulge in some horse play but all in a friendly spirit and accepted without rancor or malevolence. There are no discussions or arguments foreign to the object of the meet, consequently no dissension. Topics of interest local or otherwise may be touched upon but merely as an item of news. They are men who assemble to enjoy a few hours of shooting, and have a jovial, carefree, happy time. Many a situation is saved by a prevailing sense of humor; and if we ever tread too closely on personalities there is always a softening, a leavening that leaves no sting. If you assume from this that we are at the point of sprouting wings or shifting clouds, don't think it—you have another guess coming. They are whole souled, jolly good fellows, and a crowd you'd be glad to meet.

Tempus Fugit—and the new season is almost with us.

"Aint we glad."

Getting Ready for Sea Girt

(*Continued from page 1*)

re-entry matches, to catch up in his shooting. All re-entry shooting, however, will stop promptly at twelve noon. At one o'clock the Swiss Match at 200 yards will be fired and followed by the Long Range Individual, a twenty-shot match at 200 yards open only to B and C men. The completion of this match permits all competitors to get an early start for home Sunday afternoon.

The conditions under which these competitions are held are rather broad because it is not the idea of the officials of this match to place undue restrictions in the way of those who like to shoot the small bore rifle. Yet, it is always desirable to standardize the conditions and to preserve uniformity in order that comparisons of markmanship from year to year may be made, so that it might be possible to determine whether progress is forward or backward. Of course, where there are different types of rifles, different types of telescopes and different types of ammunition, it is not always practical to preserve uniformity, but in recent years the improvement in accuracy of rifles and ammunition has been so universal among the manufacturers that nearly all types of firearms and ammunition now give the maximum of results possible at this stage of this development.

In all of the Sea Girt competitions the rifle is limited to any .22 Rim Fire Cartridge and regulation trigger pull is required. No set triggers are permitted to be used although set trigger actions will be permitted but the Technical Officer of these competitions examines all rifles when the competitor registers and at that time set trigger actions will be sealed.

When a competitor registers he must state the name of the rifle club he represents and though a member in other rifle clubs, must shoot in the competitions only as a member of the club he represents.

In the event that it becomes necessary for any competitor to enter a protest to cover a decision with which he is not satisfied or the action of some competitor or competitors which does not comply with the rules, his protest in writing must be made direct to the Executive Officer and presented within twenty-four hours from the time of the cause for his action.

Police Dept. that "Joined"

(*Continued from page 8*)

The "Grand Opening" on March 11th, of the new Police Range filled the little canyon with brilliant uniforms. The Chief of Police, his executive staff, twenty-two division commanders, Park Commissioners, City Engineers, military and naval officers, heads of patriotic organizations and various civic bodies, the Police Commissioners and various other notables came to the canyon and blazed away at the targets. Remarkable scores were made by members of the Hollywood Division and by some of the division commanders. Chief Heath fired the first shot, as pictured above; and the division commanders quickly joined in and also began parforating the bull's-eye. We offer a picture of the gigantic police captains just as they got ready to show the world that the weapons they carry are not for ornamental purposes.

Can the police of Los Angeles shoot?

Well, wait for Captain Crossman's official reports to The American Rifleman. When he has all the records compiled and the awards have been given, you will understand why the N. R. A. has almost an entire police department as one of its units; and why crimes of violence are decreasing in Los Angeles.

ARIZONA WILL STAGE FIRST 1925 STATE SHOOT

The Arizona State Rifle Association will start the program of annual State matches with the State association competitions at Fort Huachuca on Saturday and Sunday, April 18th and 19th. The program will lead off with the Greenway Trophy Match, an individual competition at 1,000 yards, three sighters and ten shots for record. The State Secretary's Match is next on the program. This match calls for ten shots slow-fire at 200 and at 600 yards and ten shots rapid fire at 300 yards. The A target will be used for rapid fire. This match is open to teams of five men and to individuals. The winning team will receive the State Secretary's Cup presented by the Honorable George J. Roskruge, while the N. R. A. State Association Medal will go to the individual making the highest score.

The Adjutant General's Match is third on the program, calling for ten shots slow and ten shots rapid fire at 200 yards, ten shots slow fire at 600 yards and ten shots rapid fire at 300 yards. This is a team match for teams of five. The winning team will receive a cup presented by Adjutant-General C. E. Harris, the high National Guard Team will receive the Remington Trophy, and the high team of enlisted men, the Schnabel Trophy.

The Roskruge Trophy Match, emblematic of the team championship of Arizona, is open to teams of five. This event is fired over the National Match course. The winning team receives a cup presented by Mrs. George J. Roskruge and medals.

The Officer's Cup Match calls for 200 and 300 yards rapid fire. It is an aggregate, including all scores from the rapid fire stage of preceding matches. The winner takes the Officer's Cup with medals to first, second, and third place.

The Individual Rifle Championship of Arizona will be decided on the basis of the highest aggregate score in all matches except the Officer's Cup Match and the winner will receive a gold medal with a silver medal the second place and bronze medal the third.

Entrance fee in all matches is $2.00 per man. No mention is made in the program, which has been received, of any distribution of cash prizes. Conditions permit the Krag, Springfield, or Enfield rifles as issued. Telescope sights may be used in the Greenway Match. Competitors will provide their own ammunition. The matches are open to any member of any State or National Rifle Association or affiliated club or to members of the National Guard, Cadet Organizations, or Army, Navy, or Marine stationed in Arizona. Tents, cots, mattresses and blankets will be provided. Meals will be furnished for $1.00 per day.

A very attractive two days' program has been provided for Arizona riflemen and it is unfortunate that definite information was not available for publication prior to this time. The N. R. A. hopes that the riflemen of Arizona will support their Association by turning out in full force for these State events.

* * *

REVOLVER SHOOTERS ACTIVE IN SHANGHAI

The majority of American riflemen do not realize that one of the most active rifle and pistol shooting centers in the world is the foreign settlement in Shanghai. The Americans and Europeans, far from home, have seized on rifle and pistol shooting as a very practical means of recreation.

Word has just been received from Mr. T. O. C. Freeman, secretary of the Miniature Rifle and Revolver Club in Shanghai, of the results of the annual .45 caliber revolver and pistol championship which is open to all comers and was fired November 30. The target used was the Standard American 20 yard and the course of fire called for ten shots at 15 yards and ten shots at 20 yards, slow-fire. Mr. T. O. C. Freeman won the match with a score of 163 and Mr. E. A. Sykes was runner-up with 159. S. B. Wheen and T. Baker, the latter a member of the team representing His Majesty's Ship *Carlisle*, each scored 157. Immediately after the close of the championship event, a revolver team match was held between teams representing the Shanghai Revolver Club, the Machine Gun Company of the Shanghai Volunteer Corps, and a team from His Majesty's Ship *Hawkins*. The conditions called for six men per team, ten shots at 15 yards and ten shots at 20 yards, with a time limit of five minutes for the firing of the 20 shots. The civilians won the match with a team total of 926 against 866 for H. M. S. *Hawkins*, and 844 for the Machine Gun Company. Lt. Com. Dr. F. E. P. Hutton, of the ship's team, succeeded in turning in the high individual score of 178.

* * *

RIFLE LEAGUE ORGANIZED IN MASSACHUSETTS

The Eastern Massachusetts Rifle League has just been formed by civilian clubs in the vicinity of Boston. The following clubs have joined the league to date: Arlington, Reading, Beverly, Gloucester, Lynn, Braintree, Framingham, Middlesex and Massachusetts Rifle Association.

The teams will meet twice a month, and the tentative conditions call for teams of six, ten shots per man, 200 yards offhand and 200 yards prone.

It is hoped that we shall be able to give more complete details of the league and its operations in an early issue.

ENDICOTT AND ITHACA AT IT AGAIN

In the March 15, issue of THE AMERICAN RIFLEMAN we note that to the Ithaca Rifle Club, "revenge is sweet" also that they were looking forward to the time when they could sweeten up that revenge. They have now had the chance and Endicott is again in position to let them get revenge again—if they can.

On March 21, Ithaca met the Endicott club at Endicott and both teams were out for blood, and a match to gladden the heart it was. Endicott started the ball by hanging up a perfect score in the prone position and gaining a lead that Ithaca couldn't quite overcome even though they did some classy work in the standing position.

The final tabulation showed Endicott had won by the small margin of seven points, the score being 1,895 for Endicott and 1,888 for Ithaca. Ithaca's high man for the evening and high man for the match was Williams with a total score of 386. O'Brien did the honors for Endicott with a score of 385.

Ithaca, we congratulate you, and heartily agree with you that "revenge is sweet." We aren't so pleased that we won the match as we are that each club made the match an interesting fight for the other and that a respectable score was the result.

* * *

BRIDGEPORT LOSES BUT DEFIES

The Bridgeport Rifle Club announces with great joy its defeat in a telegraph match against the Lock Haven Rifle Club, Lock Haven, Pa. Conditions: two sighters and twenty shots for record; prone at 50 feet on the standard N. R. A. target; ten-man teams; five high targets to count. Scores: Lock Haven, 1,000; Bridgeport, 998.

The great joy on the part of the Bridgeport Club is traceable to the fact that it is the first organized gallery rifle shooting that the Secretary has been able to inveigle the Club or any part of it into in over a year. Any club or clubs that thinks for one minute that there isn't good alibi for the two points lacking in the above score on the part of Bridgeport are invited to thumb their nose or otherwise express their incredulity by mail or otherwise to E. Naramore, Secretary, Bridgeport Rifle Club, Bridgeport, Conn. Conditions: Ten-man teams, five high scores to count, 75 feet, two sighters, twenty shots for record, N. R. A. rules, any sights, prone position.

We are sorry that Battery C, 212th Artillery, New York National Guard, was not equipped with 155 mm. Howitzers and is confining their challenge to service teams; otherwise, we might take them on.

* * *

OREGON GUARDSMEN MORE INTERESTED THAN EVER IN RIFLE SHOOTING

Plans are under way to rejuvenate the Oregon National Guard Rifle Club, which was quite active before the war. The club was organized under the corporation laws of the State. The club-house grounds and buildings at the Clackamas rifle range are owned by the club. The club in turn is controlled by officers who have purchased stock in the organization. As a means of refinancing the club it is understood that the capital stock will soon be increased and a block offered to the officers at five dollars per share.

OLYMPIC CLUB WINS 30TH INFANTRY TROPHY

Firing over the State Rifle Range on Sunday, March 15th in the competition for the 30th Infantry Trophy, the six-man team from the Olympic Rifle Club nosed out the Southern Pacific Club, 1371 to 1359. The course of fire called for ten shots per man at 200 yds. and twenty shots at 600 yds. slow fire, and ten shots at 200 yds. and 300 yds. rapid fire. It was the 200 yd. rapid fire stage that the railroaders let their chance of victory slip through their fingers.

The high individual score for the match went to J. B. Baker of the Southern Pacific Club, with a score of 239. Baker turned in 45 at 200 slow fire, 95 at 600, 49 at 200, and 50 at 300 rapid. O. K. Mehlman, of the same club, was second high individual, two points behind Baker, dropping those two points at the last range.

The team scores:

Olympic Rifle Club	1371
Southern Pacific Club	1359
Fort Winfield Scott	1322
Roberts Island Rifle Club	1318
Mountain View Rifle Club	1305
Oakland Rifle Club	1161

* * *

DARTMOUTH TO HAVE REAL SHOOTING PLANT

"I am very glad to report that the Athletic Council of the college has given us a new indoor rifle range, at the expenditure of about $1,000. It is the first real home which we have had. Under the concrete and steel grandstand on the Memorial Athletic Field we found room for a shooting house and exposed range up to 75 ft. There is a club room about 16 x 20 ft., a shooting room 16 x 10 ft., an oil-burning heater, four firing points with stops at 50, 60 and 75 feet, four sets of carriers (issued by the D. C. M.) and electric lights throughout. There are some novel features, and some incomplete features. I hope to write up, measure up, draw, and photograph our plant, and send it in to the N. R. A. for their file, and also to invite comment and criticism. The range did not get finished until the season was more than half over, but we intend to start work on next year's team right after the Easter recess."

Allen P. Richmond, Jr.,
Capt. 365 F. A., Coach.

* * *

PEERLESS WINS CLEVELAND SPORTS GOODS TROPHY

The Peerless Rifle Club, of Cleveland, won the Cleveland Sports Goods Trophy Match fired over the sporting goods store range on March 7th and 8th. The match called for teams of five, five shots in each of the four positions, and the Peerless aggression came out with a comfortable lead over the out-of-town teams from Ashland and Akron. Peerless turned in a total of 952, Ashland 938, and Akron 932. Fifth City Rifle Club and Casters Rifle Club, the other team entries, scored 911 and 850, respectively.

The individual section was won by K. Andrews, the sixteen year old son of W. C. Andrews, who is well known to small bore riflemen. The youngster turned in a total of 192, with a 45 in the offhand position, which gave him the victory over Glantz, of the Lakewood Club, who had the same total score with a 42 standing.

The high individual score for the match went to Satava, of the Fifth City Club, who was only four points down in the four positions.

S. J. FORT

Major Samuel J. Fort, veteran pistol shot and instructor, died in Baltimore following a severe attack of quinzy and other complications, on March 26.

One of the pioneers of the present generation of pistol shooters, Major Fort was active in the handgun game for a quarter of a century, reaching the zenith of his shooting career in 1918 when he was made officer in charge of the pistol section of the Camp Perry Small Arms Firing School. While the winner of many of the large pistol and revolver competitions, he was especially interested in training new shooters, this phase of his activities having begun as early as 1901 when he schooled Troop A of the Maryland National Guard so well that its members won second place in the Revolver Team Match at Sea Girt that year. Two years later he built the Maryland State Rifle Range and served as its executive officer for two years thereafter, captaining the Maryland State Rifle Team in 1904. From 1905 to 1910, he was a shooting member of this team.

Among the victories to the credit of Major Fort are:

1907—Maryland State Revolver Championship and Coale Cup Revolver Match.

1908—Coale Cup Revolver Match, and Maryland State Championship.

1909—Maryland State Revolver Championship.

1910—Field Officers' Pistol Match, and State Secretary's Match, Camp Perry and Maryland State Revolver Championship.

1911—Maryland State Revolver Championship

1912—State Automatic Pistol Championship.

Major Fort was identified with many shooting organizations, during his long career and served as a Director of the National Rifle Association. He was a native of Catonsville, Md., and a physician by profession. After the Camp Perry Firing School was disbanded, Major Fort was appointed health officer for the State of Maryland and assigned to Charles, Calvert and St. Mary's Counties in which capacity he was engaged at the time he was seized with his last illness.

U. OF CHICAGO RIFLE TEAM MAKES A CLEAN SWEEP

The University of Chicago rifle team defeated the Worcester Polytechnic Institute rifle team of Worcester, Massachusetts, in a telegraphic match just completed by the score of 500 to 488; iron sights being used.

This victory was the eighth straight win for the Midway aggregation, and marked the conclusion of the most successful shooting year in the annals of the institution. The team was not defeated during the season, and in its last four matches turned in possible scores.

U. OF P. REGISTERS TWO MORE VICTORIES

A return match between the Frankford Arsenal Rifle Club and the University of Pennsylvania team was fired on the University range the evening of March 23rd. The final results showed the University riflemen victors once more, the score being 1428 to 1393.

As in all the shoulder to shoulder matches being fired this year by the University, the conditions called for five men firing in the prone, kneeling and standing positions, all scores to count.

The match was almost a replica of the first meeting of the two teams. The Arsenal took a lead of four points in the prone but lost it in the kneeling and fell behind with the offhand stage.

The scores:

Pennsylvania				
Dodson	98	99	96	293
Graves	100	95	94	289
Valgenti	100	96	92	288
Williams	99	97	85	281
Lisker	97	84	96	277
				1428

Frankford Arsenal				
Stabler	99	96	91	286
Eisenhauser	100	96	90	286
Johnson	100	91	86	277
Miller	99	90	86	275
Betts	100	90	79	269
				1393

The return match between the 111th Regiment Rifle team and the University of Pennsylvania resulted in another victory for the Red and Blue. The match was fired on the University range the evening of March 27th.

Although the University team lacked the services of two of its regular members, one of whom, Feaster, was high man on the Infantry team, it at no time was hard pressed to maintain its record of wins.

The scores were:

Pennsylvania				
Williams	98	97	95	290
Valgenti	99	95	93	287
Graves	98	94	92	284
Lisker	100	95	85	280
Noland	100	90	86	276
				1417

111th Regiment				
Feaster	100	97	92	289
Young	99	91	84	274
Rooney	100	94	77	271
Zellnski	97	84	81	262
Kernaghan	100	82	76	258
				1354

* * *

SPORT STORE AT ERIE INSTALLS RANGE

The Sporting Goods Store of McCallister Brothers, at Erie, Pennsylvania, has recently installed a modern 50 foot gallery equipped to handle small bore rifles and pistols or revolvers of any caliber.

At the opening shoot, members of the Erie Police Department, New York Central Railroad Police, and several civilians competed. There was a total of twenty-six entries in the two events, one for revolvers of .38 caliber or above, and the other for .22 and .32 revolvers.

This idea of installing galleries in sporting goods stores seems to be spreading. It should do a great deal to attract shooters to the stores which are progressive enough to provide range facilities, and it should do a great deal more to attract new shooters to the game by providing them good range facilities in the heart of the city.

SECOND ANNUAL NORTHWESTERN RIFLE TOURNAMENT

A tentative program has been issued to cover the Second Annual Northwestern Rifle Tournament which will be held at the new Fort Missoula, Montana rifle range on May 16th and 17th. Last year eight teams and over fifty individuals competed in the First Annual Tournament staged under the auspices of the Fort Missoula Rifle Club. This year, with invitations going out to approximately one hundred clubs in Montana, Idaho, and Washington, it is to be expected that the match will assume considerably greater importance.

The Whitefish, Montana Chamber of Commerce and the Missoula Chamber of Commerce are both backing the shoot by the donation of trophies and through publicity and moral support. The tentative program may be changed slightly here and there if the majority of the clubs indicate that such changes would be to their liking. The program is well rounded out, including trap shooting, Service rifle, small bore rifle and pistol matches.

Seventy-five per cent of the entrance fees will be distributed to the competitors in the form of cash prizes, in addition to trophies and medals. Meals will be furnished competitors at the rate of fifty cents per man per day. Tents and bedding will be furnished without cost.

Competitors in the Fourth Infantry Team Match and Western Montana Team Match may have their scores certified for Army Qualification decorations.

The program for the first day provides the Anthony Wayne Free Rifle Match, calling for two sighters and twenty shots for record in the standing position, any rifle, any metallic sights, any ammunition, entrance fee one dollar; the Taylor Long Range Match open to teams of six, Service rifle as issued, and Service ammunition, two sighters and ten shots for record at 1,000 yards, entrance fee six dollars per team; the Fourth Infantry Team Match open to teams of six, Service rifle and ammunition, ten shots for record, no sighters, at 500 yards, prone, slow fire, and two sighters and ten shots for record at 600 yards.

The second day calls for the Western Montana Team Match, open to teams of six. Only Montana Teams are eligible for the trophy, but any team may compete for cash prizes and qualifications, Service rifles, sights, and ammunition. This match is fired over Course "A," with the exception of the two stages of Course "A" which is embraced in the Fourth Infantry Match. The Rosebud Small Bore Match will be fired the second day, open to any .22 caliber rifle, any metallic sights, ten shots standing at 50 yards and ten shots prone at 100 yards, entrance fee one dollar. The third event is the Powder River Pistol Match, open to any pistol or revolver, calling for twelve shots slow fire at 25 and 50 yards, and twelve shots rapid fire at 15 and 25 yards, target L.

A clay pigeon shoot will conclude the program, with a string of twenty-five birds, 18 yard rise. It is probable that in order to encourage club members who are unable to get together a full six-man team to attend the match as individuals, that the system in vogue on the West Coast will be established at Missoula of permitting individuals to fire in the team events, in view of the scarcity of individual competitions.

Lieut. Norman E. Caum, Fourth Infantry, Fort Missoula, Montana, is secretary of the Fort Missoula club, and will be very glad to receive any suggestions or to give any information concerning the coming tournament. The National Rifle Association is strongly in favor of these state and regional matches, and hopes that all riflemen within comfortable travel distance of Fort Missoula will be on hand for the competition.

* * *

LAKEWOOD HAS ITS UPS AND DOWNS

During the last week in March the Lakewood Rifle and Pistol Club of Cleveland, shot two matches. The Lakewood outfit won the first match, which was with Canton, Ohio, with a team total of 936 against 915 for the visitors. The second match, which was with the Dayton Rifle and Pistol Club told a different story, however. It was a dual proposition calling for teams of ten, ten shots prone and five shots in each of the four positions with the rifle, and twenty-five shots at twenty yards with the pistol.

The Dayton club turned in 2390 against 2295 for Lakewood in the rifle match, while in the five-man pistol team event Dayton again came out on top, 1078 to 1025.

Lakewood is setting a splendid example for other clubs in maintaining such a heavy schedule of inter-club matches. There is only one way to maintain interest in a rifle club, and that is by constant competition with outside organizations.

* * *

NOTICE OF LEAGUE MATCH, ANNUAL MEETING, AND ELECTION OF OFFICERS OF THE SOUTHERN CALIFORNIA RIFLE AND REVOLVER LEAGUE

The Southern California Rifle and Revolver League will hold a League Match, Annual Meeting and Election of Officers on Sunday, April 19, 1925, at the new Government Range, March Flying Field, near Riverside. This range will later be used by all the military organizations and civilian clubs near Riverside, and will be opened up for use for the first time by a League Match of the Southern California League, by special permission obtained by W. S. Carmichael, the League Executive Officer.

To get to the range, go out East 8th Street, in Riverside. The range is eight miles from center of town, and on the left side of the road. There will be a bunkhouse, with stove, for those who want to camp over Saturday night. Bring your cots. A sergeant in charge will direct you.

The program is varied enough to provide attraction for all classes and kinds of riflemen, and a big attendance is hoped for. The meeting will be held at noon, in the building which will serve later for a clubhouse. Lunch, hot coffee, etc., will be provided.

1,000 Yard Match: Ten shots; C target; two sighters after striking the paper; two classes of rifles; class A, any rifle weighing ten pounds or less, and any sight not containing glass; class B, any rifle and any sight; position, prone, no rest.

600 Yard Match: Ten shots; B target; two sighters; two classes of rifles as in 1,000 Yard Match; position, prone, no rest.

300 Yard Match: Ten shots; A target; two sighters; any rifle weighing ten pounds or less; any sight not containing glass; position, prone, no rest.

100 Yard Match: Ten shots; German Ring Target; two sighters; any .22 caliber rifle; any sight; position, prone, no rest.

Pistol Match: 25 yards on the 100 yard small bore target; ten shots slow; two sighters; ten shots rapid; no sighters; rapid will be fired in two five-shot strings; ten seconds to the string; any pistol.

Firing will commence at 8:00 A.M. Entries close at 11:00 A.M. Shooters will enter on the General score sheet and will shoot in that order. Scorekeepers will get their names from the general score sheet only. Contestants may enter both classes in the 1,000 and 600 yard matches. Entry fee 50 cents for each entry.

There will be a three inch silver cup for first place in each match, and there will be suitable merchandise prizes provided for second and third places. The prizes will be on the grounds and will be given out as soon as the match is over.

We should have a big turnout for this match. We expect members from Santa Barbara, San Diego and all points between. The location and conditions of the next League Match will be taken up at the meeting, so come and talk over what you want.

* * *

GIRLS' MUNICIPAL WINS AGAIN

The Girls' Municipal Rifle Club of Minneapolis, Minn., won another rifle match fired against the boys' junior team of the Railway Y. M. C. A. of Crestline, Ohio. Scores were 494 to 492 out of a possible 500 points. This was fired in the prone position at a distance of 50 feet using .22 caliber rifles with iron sights. Scores follow:

Girls' Municipal Team Minneapolis, Minn.		Boys' Junior Team Crestline, Ohio	
Helen Schoonmaker	100	Frank Castner	100
Gertrude Anderson	99	C. Pool	100
Ruby McCourtie	99	Eugene McGillie	98
Ione Davis	98	Leland Talbott	97
Gertrude Dahlquist	98	J. Strauch	97
Total	494	Total	492

Scores were decided upon by Major Ordnance Robert Fulton of Des Moines, Iowa.

* * *

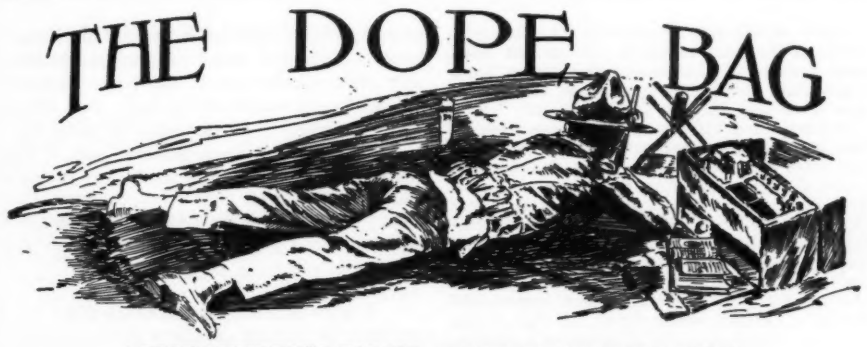
SPANG-CHALFANT HOLDS SECOND ANNUAL DINNER

The second annual dinner of the Spang-Chalfant Rifle Club was held at the residence, February 14th. About fifty men sat down to a dinner such as only the ladies of the residence know how to provide. After dinner, Mr. J. S. O'Donovan, president for 1925, introduced Mr. Clarke, after complimenting the club on its members, called on Mr. Freeling, of the Ft. Pitt Rifle Club. Then Mr. I. C. Loughrey, of the Millvale Rifle Club, spoke; also Col. Wagner, of the 99th Division, and last, but not least, Mr. Henry Chalfant, president of Spang, Chalfant & Co., Inc.

When the dinner and speechifying were over, at about 10 o'clock, all adjourned to the range and tried to shoot.

Loughrey brought his gang up Tuesday evening, March 10th, to shoot a three position match. Much to our surprise they only beat us by 35 points.

THE DOPE BAG



A FREE SERVICE TO TARGET, BIG GAME AND FIELD SHOTS
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Every care is used in collecting data for questions submitted, but no responsibility is assumed for any accidents which may occur.

Modern Squirrel Rifles

By Townsend Whelen

SINCE reading Kephart's article in THE AMERICAN RIFLEMAN for Nov. 1st, 1924, I have grown more than ever dissatisfied with my squirrel rifle, a .39 Martin with 103 rear and combination front, so have ordered a Hensoldt 4x Dialyton No. 5 with special reticule, diagram of which is enclosed.

Now the thing that is bothering me is, shall I get an automatic Remington for the .22 long rifle and have a special heavy barrel fitted also a stock, or shall I get a Remington automatic for the .22 automatic cartridge and leave it the way it is as it fits me pretty well with metalic sights, and have a detachable comb made to use with the scope.

Will use a "noshe" mount of course. I realize that the .22 automatic is not as accurate as the .22 long rifle but do you not think that the extra killing power would offset this, especially as I will seldom if ever use it at more than 100 yards.

Either one of these will make quite a dent in my bank roll so I want to be sure of what I want before I get it, I would prefer an automatic rifle for the Stevens 25 rim fire or the .25-20 but there are none to be had unless I could have the .22 automatic remodeled to handle the .25 rim fire which is doubtful though I have not investigated. Have you ever heard of it being done?

What do you think of the reticule? Can you suggest any improvements? M. E. M.

Answer (by Major Whelen). Let us see about this quirrel rifle business. A squirrel is perhaps the smallest game that the rifleman ever shoots at, and on account of its smallness rifleman over shoots at, and on account of its smallness a rifle of extra accuracy is desirable or the game will be missed so often and so regularly that the sport will not be interesting. Probably you would take just pride, and be satisfied only with a rifle which would give you clean head shots most of the time.

If a telescope sight will give you increased accuracy it will pay for itself, but there is nothing to be gained by putting a telescope on a rifle which will not make groups smaller than those you can get with metallic sights.

Now, generally speaking, I would sum up the accuracy of the various .22 caliber rifles about as follows:

Rifle	Average Group at 50 yds.	Average group at 100 yds.
Best heavy small bore rifles, 22 L. R.	1⅛"	2½"
Light repeaters and autoload. .22 L.R.	1⅝"	3¼"
Light autoloading, 22 auto.	2"	4"
Heavy barrel autoloading, .22 auto cartridge	1⅝"	3¼"

If you analyze this table, and if you figure a little on your slight errors of aim, and on the fact that your squirrel is never at the exact range, you will see that this accuracy in the table must have added to the groups the variations which come from errors of aim and estimate of range, and I think you will come to the conclusion that only the heavy small bore rifles for the .22 long rifle cartridge have the requisite accuracy for your purpose.

The Remington autoloading cartridge, in addition to its relatively poorer accuracy as compared with the .22 long rifle cartridge, has a muzzle velocity of 950 f.s. as compared with 1,070 for the .22 long rifle. The trajectory is more curved. Also the temper of the bullet is very much harder than the .22 long rifle bullet, and it does not kill nearly as well.

Placing a heavy barrel on the light autoloading or light repeating actions will not help you much. The trouble with these light actions is that they will not breech the cartridge up tight enough for fine accuracy, and they can't be made to do so. You gain very little by adding a heavy barrel.

It is likely that your telescope sight, or rather its mountings, will not satisfy you unless you can bring the point of aim and point of impact to coincide exactly, so that the bullets will strike where the reticule rests on the target. Now the point of impact with all the .22 caliber long rifle cartridges varies a lot from day to day, that is it may vary as much at 50 yards as an inch. With the Noske mount you cannot change your sighting an inch at 50 yards without spending several hours over it. The only proper mountings for a telescope sight on a squirrel rifle, to my mind, are the Winchester, or the Belding and Mull, but the scope should not slide. B. & M. make hunting mountings, easily adjustable with accuracy to minutes of angle or closer, which do not permit the telescope to slide.

You ask me to criticise your design of reticule. It would probably be all right if you could have it made accurately, but I don't believe you can. Moreover, have you obtained a quotation of price on it yet? I should not be surprised to learn that Hensoldt will charge you more than the cost of rifle, scope, mountings, and all combined for that reticule. And then they won't get it right because it is really a job for a first-class optical engineer in a laboratory with unlimited time and funds for experiment.

From the above you will see that I do not think your plans will result in a rifle which will fill your requirements. Therefore it is up to me to suggest something that I think will.

In my opinion the very best squirrel rifle possible to obtain would be a Peterson Ballard for the .22 long rifle cartridge. It should have a rather heavy barrel about 24 inches long so as to be handy and not too heavy. The sight should be either a Zeiss Zelmi with Winchester No. 2 mounts (this glass is the only large field glass that I know of that can be used with Winchester mounts), or very much preferrably the Belding and Mull 3-power hunting telescope with B. & M. non-sliding hunting mountings. The stock of the rifle should be made to fit you, and the comb should be as high as possible and still permit the cleaning rod to be used from the breech.

Should you set a lot of stress on rapidity of fire then I should choose a Winchester Model 52 rifle, perhaps with the barrel cut off to 22 inches to make it more handy. A heavy piece of steel should be screwed and soldered over the receiver of the rifle on top, extending from the bridge forward over the barrel, on which to mount the telescope sight. The B. & M. 3-power hunting telescope sight should be mounted on this at such a height above the barrel that it does not interfere with the bolt handle when the bolt is opened. This will place the line of sight rather high, and a special detachable comb secured to the stock with steel dowel pins should be provided.

I should not try for any special kind of reticule in the B. & M. scope. Such reticules cost like the devil, are seldom accurate, and confuse one when it comes to aiming. The B. & M. scope has a most excellent flat top post reticule. This scope I found accurate enough recently to give me 1½ inch group at 100 yards, and it is the very best small bore hunting rifle telescope that I ever saw.

In planning a telescope sight outfit one has to take into consideration the rifle he is going to use, and the use to which he wants to put it. For example, with the Springfield and Mauser rifles the Winchester and B. & M. mountings will not do at all. They cannot be placed where they should be to bring the eyepiece of the telescope at the proper point. Neither do I know of any way to properly mount a B. & M. hunting telescope on such rifles. For these bolt action rifles the Noske mount and one of the higher class German glasses are the only things, and they are all right because what one wants to do on such a big game rifle is to get the telescope set with greatest accuracy for 200 yards, and keep it there year in and year out, and the Noske mounting will do this very thing. But on your small bore rifle an inch means a lot and you must have a scope and mountings that you can adjust quickly with precision. In the morning when you start out you want to fire a few sighting shots, and if on that day, probably on account of temperature, your bullets are striking an inch low and an inch to the right at 50 yards, you want to be able to adjust the telescope instantly to correct.

A .38 SPECIAL LOAD

CAN you suggest a powder for use in the .38 Special that can be satisfactorily loaded by measure. Any suggestions you may be able to offer as to such a powder and the proper charge will be greatly appreciated. I. K., Benkelman, Nebraska.

Answer (by Major Hatcher). The best bulk powder at the present time for use in the .38 Special, is King's Semi Smokeless. This powder can safely be loaded by measure.

The proper charge is eighteen (18) grains for the .38 Special, with the 158-grain bullet.

I would suggest that you take an old cartridge shell and make a measure. Get some druggist in the neighborhood to weigh out eighteen (18) grains of powder for you, and place this in the cartridge shell and see how high it comes. Then file the shell down until it is just level, and use it for measuring the powder.

LOADS FOR WISCONSIN GAME

I EXPECT shortly to move to Wisconsin, where I hope to get in some hunting now and then. You doubtless know just what game they have up there. I do know they have deer, for one thing. I should like to know of the lightest loads I can consistently use on this various game, both factory ammunition and that of my own loading. In the latter, besides the best factory bullet, I should like to know what home-cast bullets I can use. I suppose these will have to be gas check, though I would rather not bother with the copper cups if any known plain-base bullet can be made to do the work. If possible I should like to stick to a simple tin-lead alloy. And I should also like to stick to No. 80 powder, if possible; because I keep this for target work anyway; and if I should have trouble in obtaining it I can substitute an equal charge of du Pont Shotgun Smokeless, so I understand. I am out for simplicity, as I expect to be working very hard, and to have little spare time to fix up and use a ballistic laboratory. The load of 12 grains No. 80 and Bond bullet No. A-311870 which you prescribed for foxes, hawks and crows shoots splendidly. Are foxes the largest animals this load should be used on; and what are the killing limits of this bullet with any charge of powder? In taking up a new bullet I should like, if possible, to choose one of Belding & Mull's, as the use of their nickel molds appears to save much time and bother.

I will not have time to go in for any competitive events; but will wish to get in what target shooting I can, for the pleasure of the thing, and to keep in shape for the hunting season. To save time as much as possible in home loading I am thinking of getting one of Belding & Mull's nickel molds,—either single or multiple. Their best two bullets for this work would appear to me to be the 154 grain and the 170 grain Squibb-Miller, both plain base, and the latter unsized, apparently. What is your recommendation in this case? I should like, if possible, to stick to plain base bullets.

In using a bullet like the Squibb-Miller, which is not put through the sizer-lubricator, according to the B. & M. catalog, how would it be to lubricate it by dipping the bullet in lubricant before loading the cartridge into the rifle? I am fully mindful of the results of using Mobilubricant in this manner on full-power loads. But the plain base case bullet would be driven by greatly reduced breech pressure.

Is my Bond A-311870 bullet as accurate, up to 300 yards, as any other cast bullet?

Are you still of the opinion that simple water cleaning, as described by you in the Conversion Products booklets, is all that is necessary to keep a rifle in perfect order indefinitely, when using cast bullets, or those jacketed with Luballoy or Gilding Metal? I have encountered some discussion on this point; but will accept your opinion every time. Should you feel water is not always sufficeint, is there anything simpler than, and equally as satisfactory as, the use of ammonia mixtures? L. J. H., Easton, Maryland.

Answer (by Major Whelen). Wisconsin rifle game, I imagine, consists mostly of deer, fox, woodchuck, grouse, hawks, crows, and muskrat. I know of no reduced load that is better than that you are now using. That is either Ideal Bullet No. 308241-S, Bond bullet No. 311870, or Belding and Mull bullet of 154 grains weight. I don't believe it makes a particle of difference which bullet you use, they are all alike. Bullets should be cast about one to ten tin and lead, and should be sized to .311-inch. The powder charge should be about 12 grains of du Pont No. 80 or No. 75 powder. This load is reliable and accurate. It shoots well in any Springfield rifle. So many other reduced loads are cranky, shooting well in one rifle, and poorly in others of exactly the same make and caliber, or being susceptible to the least change in powder or alloy. This load has not a particularly flat trajectory, but then it is a reduced load, intended for small game, and as a real small game cannot be hit at long ranges where trajectory begins to figure a lot. It is accurate enough for sure kills up to 100 yards. Which is the limit to which you can hit small game anyhow. It has considerable power, more power than the .32-20 for example, and lots of deer have been killed with the .32-20.

Don't get a double mold. Most men have all they can do to get one perfect bullet out of a mould for each cast.

For a target load, alloy bullet, for ranges up to and including 100 yards you cannot do better than the above load. For ranges over 100 yards I believe that the best is the 169 grain Squibb Bullet with gas check. I would be inclined to try the latter first with 20 grains of No. 80. If that did not give the results desired, increase the weight of charge just a little. If still at sea switch to about 23 grains of Hercules Lightning. I have not got so good results with a plain base bullet when one loads behind it enough powder to reach out to 200 yards and over.

Water and a brass brush are all that are necessary for the most efficient cleaning of a high power rifle, whether lead alloy or gilding metal bullets are used. I regard the brass brush as also necessary. Pour or swab water through. Then use the brass brush for a couple of strokes while the bore is still wet. Then pour or swab a little more water through. The amount of dirt that the second water cleaning will bring out will convince you of the necessity for a brass brush. Then of course dry the bore thoroughly and protect the surface with oil or grease.

A rifleman in whom I have much confidence has told me that he has found that the Springfield does not shoot quite so well with lead alloy bullets which it is coated with the very thin copper plating that always comes from shooting gilding metal bullet. He says that when he wants to get the finest accuracy from lead alloy bullets he always cleans all the copper plating out of his bore with the regular metal fouling ammonia solution. I should not wonder if he was right. Probably if you want to get two inch groups from your lead alloy bullets you had better do this, but the reduced loads recommended herein will shoot almost all day inside a four inch bull at 100 yards without taking this trouble.

It Works

BY A. K. FRIEDRICH

For some time I have wanted to write an article of appreciation of the article on "Removing Metal Fouling by a Practical Mechanical Method," by Charles A. Chase, which appeared in the August 15, 1924 issue of THE RIFLEMAN.

I had loaded 500 shells with the Paine load carefully weighing each powder charge. The first group obtained at 200 yards with these loads was so sad I was nearly moved to tears. Group No. 2 was worse and group No. 3 about the same. I was shooting my heavy Springfield. To test my holding I shot two strings with 42 grains of du Pont No. 16 and the 170 grain Frankford Arsenal Flat Base Gilding Metal Jacketed bullet. Result a 90 and a 91 on the 200 yard international target, or just about my usual score shooting prone.

I had McKelvey and Davis try some of the Paine loads in their service Springfields, with no improvement in the groups obtained.

Now I do not doubt that this load shoots O. K. for Mr. Paine, but they were a dead loss as far as I was concerned. Mentally I counted up the time I spent weighing those powder charges. (Major Whelen says one minute per, but it takes me from two to four.)

Very sadly and resignedly I toted the remaining shells back home and stowed them away in a box in a corner of the cellar. There they remained until reading the article by Mr. Chase. Hope, they say, springs eternal in the human breast. Perhaps I could use those loads after all. After shooting the C course one afternoon we each fired five of the Paine loads. Joy, felicity and exhuberance! All the lumps of metal fouling were gone and there remained only a thin coating of copper which washed away in plain ammonia (NH4OH).

So I wish to thank Mr. Chase for his advice on removing metal fouling. Messers McKelvey and Davis wish to join in these thanks.

A REVOLVER FOR RAPID FIRE

WILL you be kind enough to give some information about rapid fire with a revolver? The revolver I am using is a .38 Colt Officers' Model with 7½ inch barrel. Would the .38 Colt Army Special with 6 inch or 4 inch barrel be better for this kind of work?

The object is to make the best possible score on the 20 yard Standard American Target at 60 feet, shooting five shots in ten seconds. Would it be advisable to have the notch in the rear sight wider than usually used in slow accurate target work? I have the three revolvers mentioned above, and intend to use one of these, altering the rear sight with a file if necessary.

For this kind of shooting I have been advised that I could do better by using the revolver single action, but so far I have been getting better results by cocking the gun with the trigger. If I remember correctly, Mr. McCutcheon and Mr. McGivern are about the 2 fastest revolver shots in the country, and I believe they both shoot "double action." Am I right or wrong? D. B. P.,

Answer (by Major Hatcher). The Colt Officers' Model with 7½ inch barrel has been used quite successfully for rapid fire, but I fancy that most people would find it somewhat easier to manipulate a gun with a shorter barrel, because with each shot the recoil throws the shooter off, and he then has to swing his gun back in line with the bull's-eye, which can be done easier with a shorter barrel.

I would suggest that you try some rapid fire with each of these guns, and see which handles the best for you.

The first requirement is to know to shoot well slow fire. It is even more important in rapid fire to pull the trigger absolutely without jerk. This art is best learned by slow fire practice.

Most expert rapid fire shots cock the revolver for each shot separately. A few use the double action method, pulling the trigger back until it is felt that the point of maximum resistance is reached, then lining up the sights and letting the shot off with an extra squeeze. Others pull the trigger a short distance, and as soon as the hammer starts to come back, they reach for it with the thumb and complete the cocking motion, then fire as in single action.

It seems to a beginner of rapid fire that it is almost impossible to go through the motions of cocking the gun for each shot and still get the string off on time. It will be found that the greatest aid in this is "dry practice." That is, have someone time you while you snap the revolver at a mark without cartridges.

A number of years ago I had occasion to shoot a match against a very good shot, and I was located at that time where I had no facilities for shooting, I placed a small target, reduced in exact proportions, on the wall of my room and practiced every day for several weeks, snapping at this target single action, having someone time me. Finally when the match came off, I was able to get off the five shots single action in 5 1-5 seconds, and made a very satisfactory score, whereas before I started this "dry practice," I had been unable to do better than 11 or 12 seconds single action.

I do not know exactly how Mr. McCutcheon or Mr. McGovern do shoot.

For rapid fire work, I think that rather large sights, both front and rear, are preferable.

RE-THROATING THE KRAG

I AM going to have a new Krag barrel made and have an idea about which I wish your advice.

I do not think well of the 180 grain bullet in a barrel throated for the 220 grain bullet. If I have it throated for the 180 grain bullet will the 220 grain Model 1906 Winchester or U. S. Cartridge Company bullet work O. K.? If so would it be safe to withdraw the bullet from the government ammunition and substitute the 220 grain '06 bullet with the same primer and the same powder charge? If this would not be safe can you please advise me of a good reliable hand bored, with pyro cellulose powder if possible.

I have also a .25-20 model 1892 Winchester. Is it safe to use the Remington and Savage Hi-Speed loads with pointed bullets in the magazine of this rifle?

This is about as much gun as it will be safe to use on crows in this locality. Can you suggest an easy load on the barrel as only soft steel can be obtained in this rifle now? A. S., Vancouver.

Answer (by Major Whelen). Relative to the throating of the new barrel for your Krag rifle, if you have the barrel throated for Krag cartridges loaded with the 180 grain pointed bullet, or the other pointed bullets (that is with a throat like the Springfield), then you cannot use in it the 220 grain bullets made specially for the Krag without seating them entirely too deeply in the cases, because the throat will be too small and short to take the large forward portion of this 220 grain Krag bullet. But you can use with entire satisfaction the 220 grain bullets made by Winchester specially for the .30-06 cartridge because the forward diameter of this bullet has been reduced slightly in diameter so it will enter the throat of the Springfield rifle. Or you can use the 220 grain Western soft point .30 caliber bullet with Lubaloy jacket, all of which, even including those loaded in Krag cases, are suitable for use in the Springfield or in your barrel throated for the 180 grain bullet.

It is perfectly safe to withdraw the bullets from factory or military Krag cartridges originally loaded with the 220 grain full jacketed bullet and substitute any of the above 220 grain soft point bullets, or any of the suitable 180 or 150 grain bullets. For a hand load with Government pyro-cellulose powder, du Pont No. 20 powder, or du Pont No. 16 powder, use 36 grains of any of these powders with the 220 grain bullet. For a short range and small game load use 17 grains of du Pont No. 80 powder, or 16 grains of du Pont shotgun smokeless powder and the regular 150 grain full jacketed pointed bullet for the Springfield.

It is perfectly safe to use the new Remington Hi-Speed or Savage Hi-Speed .25-20 cartridges in your .25-20 Model 1892 Winchester rifle, but I am inclined to think that you will find that after a very short time you will find that either of these ammunitions will pit your barrel very badly despite the exercise of the greatest care in cleaning the bore. I think that you will find that the most satisfactory cartridge for the rifle is the Winchester low velocity smokeless, made by the Winchester Company since 1920, in which year they charged the powder used in loading this cartridge. I think that this cartridge does not have nearly the corrosive effect of the newer Hi-Speed cartridges, and I have found it extremely accurate, and it has ample power for any game one ought to shoot at with a rifle of this size.

Remember that in shooting at crows in any settled locality you must always figure on where your bullet is going to land, and must have a safe background behind you to stop the bullet. Even the little .22 Long Rifle cartridge has a range of 1400 yards, and I imagine that all of the .25-20 cartridges will range out to at least a mile and a half. The greatest range from a rifle is obtained when the barrel is elevated at an angle between 20 and 30 degrees.

I think that you can now obtain a 22 inch nickel steel barrel for your model 1892 .25-20 Winchester rifle, but as the new nickel steel barrel is a little different in its outside shape from the old one I think that you would have to send the rifle to the factory to have it fitted, and also purchase a new forearm and magazine fittings to fit the new barrel.

FITTING THE BARREL AND ACTION

I AM writing to you for information to get straightened out on the subject of fitting action and barrel to stock. I have read so many different opinions in different magazines that I do not know which is which. I have one of the Sporting Springfields purchased through the Director of Civilian Marksmanship, and due to my build and also wearing glasses all the time, the stock as issued forces me to practically look over the rim of the glasses or through the extreme upper edge. I am going to restock it with a stock that will fit me. Should the barrel rest on the wood forearm? The one I have allows a piece of writing paper to be passed between barrel and forearm when band is loosened up, but wood and barrel were drawn together at band when gun was received.

Does the band take any of the strain when firing? I mean is it necessary that the band be placed around wood and barrel? Is it safe to fire a gun without a front band? A friend cut down his forearm to the shape of the Remington and while waiting a chance to get it to a gunsmith decided to try it out. He claims it made a better group than when it had the band and decided not to have one put on and is still using it without the band. Is the Remington bolt action type of front band satisfactory? Do you know anything about the class of work done by Mr. Tate of Montague, California? His prices seem very reasonable in comparison with most gunsmiths who seem to insist on putting out a fancy high priced job, while all I want is a plain one. G. L. Van A, Big Creek, Cal.

Answer (by Major Whelen). My experience has been that the barrel band and the forearm on a sporting type of Springfield rifle exert very little influence on the accuracy of the rifle, provided that the barrel band is not clamped down so very tight on the barrel as to interfere with the elongation of the barrel that takes place when it heats up from firing, and also provided that the guard screws are kept screwed up very tight.

The best practice is to cut the channel for the barrel in the forearm so that the wood just neatly touches the barrel at every point.

The barrel band may be one which encircles both forearm and barrel, and provides for the sling swivel, as on the government type of sporting stock, or it may be the purely sporting type which encircles the barrel only, but has a lug on its under side into which the screws that retain the sling swivel pass. In this latter type the screw between the barrel band and the sling swivel acts to keep the forearm up close to the barrel.

There is no objection whatever to a forearm which does not touch the barrel at all, except that it is rather unsightly, and if the sling swivel be fastened to this floating forearm it tends to continually bend the forearm more and more away from the barrel, making an ugly gap.

R. D. Tait, of Montague, Calif., is absolutely reliable. He makes most excellent stocks for the Springfield and Krag rifles, and his prices are very moderate. Usually his stocks are made up about 90 per cent finished, permitting the rifleman himself to do the little finishing work and close fitting necessary for perfect assembly, but he can also completely fit a stock to your rifle if you send it to him.

May I suggest that you will find lots of information and hints on stocking, and on barrel bands from my book, "Amateur Gunsmithing."

CASES MUST FIT

I HAVE a Chas. Lancaster double barrel ten bore shotgun, with 32 inch barrels, weighing about 9¼ pounds. This gun has Whitworth steel barrels, under lever, Lancaster patent, made 1882. The gun is tight, and in good condition, and I have been wondering as to the kind of load which would prove the most satisfactory.

I have taken a sulphur cast of the chamber, which shows three inches to the beginning of the lead, *i. e.*, from the shoulder against which the rim of the shell rests to the start of the taper, which in turn is about one-quarter inch in length. On the under side of the barrels is stamped British proof marks, Nitro one and one-half. Thus far I have been using 2½ inch shells, with very poor results. I would be pleased to know the make of shell best suited to this gun and where they may be procured. Also kindly let me know the length of shell for which this chamber is intended. J. H. McG., Strathcona, B. C.

Answer (by Captain Askins.) Your gun is intended for three inch cases and not for anything shorter. Patterns are bound to fall off with short cases.

You can procure empty Winchester "Leader" cases in three inch, but I am not aware of any three inch ammunition now being loaded in ten bore. Perhaps it could be had in case lots. Try U. S. Cartridge Company, 111 Broadway, New York City.

The ten bore situation is rather in a bad way in this country and proper ammunition is not being made for this gauge. If you cannot get what you want in this country try Eley Brothers, London, Eng., asking for four drams or equivalent of smokeless powder and one and a half ounces of number 4 shot. English fours are the size of our fives.

OVERBORED SHOTGUNS

DO you know of any firm or engineering works that would be willing to undertake the work of overboring a 12 bore gun similar to the Magnums at present being made by two firms here? I have a 7¾ pound Parker 12 bore that I would like to have bored in this way as the gun is too heavy for field work.

I wrote the Hoffman Arms Company and also the Yankee Specialty Company regarding this. The former stated that to thus bore a gun would weaken it, but if I would send them the gun they would bore it to improve the shooting of same. I did not take advantage of this offer. The latter company said that they could do it but were too busy to engage in this kind of work. Therefore, it looks as if it was almost impossible to secure the services of a competent concern to do this work.

Can you tell me where I can secure some first-class shotgun loading tools? I would like to know how you gauge the pressure on your wads accurately. What is the correct chamber dimensions for a 12 bore gun chambered very close for a shell of 2¾ inches? J. J. W., Emporium, Pennsylvania.

Answer (by Captain Askins.) I do not know any firm that is overboring guns except the Hunter Arms Company and the Fox Company. The Ithaca Gun Company can do the work for you, but I do not know whether they would or not.

Try the Modern-Bond Company, Wilmington, Del., for shotgun reloading tools. The Yankee Specialty Company might make them too. The pressure put on wads is accomplished with a spring rammer. The Bridgeport Gun Implement Company used to furnish such a rammer, but I believe they are out of business now. Try the Modern-Bond Company. It is just possible that they make such a rammer. As you push in the spring the number of pounds pressure is shown.

With a heavy gun, such as you describe, the overboring which is only ten thousandths of an inch will not weaken the barrel appreciably.

The Arms Chest

TERMS

THE uniformly excellent returns from advertisements appearing in the classified columns of THE AMERICAN RIFLEMAN make it a most satisfactory and productive medium for the disposal of surplus shooting equipment, or the acquisition of special types of firearms.

Free Insertions. Each subscriber is entitled to one insertion of one-half inch, when his subscription is paid for one year. It is necessary only to write or print the text plainly, noting thereon the date subscription was paid. These advertisements will appear in the first available issue and should be in publication office two weeks prior to the following publication date.

Paid Insertions. Non-subscribers or those who have already made use of the subscriber's privilege may take advantage of these columns at a cost of $1.00 per inch or part thereof. No advertisement for less than $1.00 accepted. Advertisements will be set in 6 point solid. They should be in the publication officer two weeks prior to the time appearance is desired.

FOR SALE—1 Mignon 4X telescope, in new condition, $12.00. 2 barrels, U. S., cal. .30 model 1903, with rear sight. These are in fine condition, not a pit or rust spot inside nor out, one is star-gauged. $4.00 apiece. 1 barrel, U. S. cal. .22 model 1922, not a pit or rust spot, $5.00. I have had real heavy barrels placed on the actions that these barrels were on originally. L. O. Davidson, Wheaton, Minnesota. D

We have fought the fanatics to draw this round. Let us prepare for an intelegent offensive NOW. Ship your stamp and SHIFT WITH THE HOUSE OF SHIFF the GUNMAN. North Woodstock, New Hampshire. E

SHOOT AT HOME OR ANY PLACE—Be an expert with revolver or rifle with our all-metal target and bullet arrester. It is absolutely safe, durable and practical. Weight 25 lbs., price $9.00. Your address on post card brings full particulars. Morris Manufacturing Co., 75th St. & Coles Ave., Chicago, Ill. G

SHIFT WITH THE HOUSE OF SHIFF THE GUNMAN, N. Woodstock, N. H. This is our 54th year, and best. I have never shipped a gun I did not personally back EXCEPT NEW, DIRECT to your order. I never carry because they are cheap but only because they are RIGHT. One charge. One price to ALL. If you have not shipped your stamp, if you are not fighting fanatics, if we have to smuggle our guns as you do a drink THEN SHIFF'S NEW YEARS' MESSAGE to YOU is that it serves YOU WELL AND RIGHT. H

WANTED—Patterson, Dragoon and Bisley Colts. Kentucky Flint Rifles. North Berlin, North and Chaney, Richmond and Harper Ferry Pistols. Wesson 1855 22 cal. Revolvers. Specify in detail, cals., length of barrels and condition. S. H. Croft, 33rd & Market Sts., Phila., Pa. I

FOR SALE—One Parker C. H. ejector 20 gauge duck gun, regulated for Super X shells, 32-inch barrels, single trigger, straight grip stock 1½ x 2½ x 14¼, weight 6¾ lbs. Absolutely new condition, cost $250.00, sell for $150. One Parker B. H. Ejector 12 gauge duck gun regulated for 2¾-inch Super X shells, 30 inch barrels, straight grip stock 1⅝ x 2⅝ x 14¼, Silvers recoil pad, weight 7¾ lbs. Fine condition. Price $165.00. Both the above are bored full choke left and slightly modified right. No trades considered. These guns are real bargains. They are on sale at Kirkwood Bros., 23 Elm St., Boston, to whom all inquiries should be addressed. Maj. T. D. Sloan, U. S. A. 842

FOR SALE—Model 53 Winchester, .32-20 cal., solid frame, nickel steel barrel. Nearly new, barrel perfect, ammunition, '94 tool. $25.00. Will send C. O. D. S. V. Curry, 423 Center Ave., Carnegie, Pa. 843

FOR SALE—New and slightly used Graflex, kodaks, lenses, binoculars, telescopes Zeiss, Goerz, Hensoldt, Busch, reasonable prices, good firearms taken in trade. National Camera Exchange, 29 so. 5th St., Minneapolis, Minn. 845

FOR SALE—Fine curly walnut stock for model 52 rifle, fully checked, 13½, 2⅞, high comb, steel shotgun butt plate and p.g. cap, swivels, oil finished, new $30.00. Another, identical, but with trap in butt, no p.g. cap, $30.00. Springfield .22 stock, 12⅞, 2½, high comb, nice figure, steel plate, cap and swivels, fully checked, $15.00. Original No. 52 stock, perfect, $4.00. Remington .30-06 barrel, not blued, never fired, $5.00. B.S.A. .177-cal. air rifle and 1,000 pellets, perfect, $15.00, or what offer. 630 Krag 220 grain bullets, f.m.p., $4.00. Perry Frazer, Ridgwood, N. J. 851

FOR SALE—Sporting Springfield, specially selected and star-gauged, stock by King of California, guaranteed perfect shooting condition, shot only few times. Equipment, Neidner scope blocks and Winchester 5-A scope, solid leather scope case, two bolts one with Lyman 103 sight, calibrated Lyman 48 also folding leaf sight. Complete cleaning equipment, two boxes game cartridges. Beautiful workmanship and checkered English walnut stock. Photograph sent upon request. First M.O. for $97.00, will ship or C.O.D. subject to inspection. Expert riflemen will appreciate this exceptional value. This is the last one of my pets. Paul D. Burress, 1200 Western Ave., Joliet, Ill. 845

FOR SALE—Rifles: Krag, Ross, Lee-Enfield, Springfields Model 1917, 1873. Winchester Musket and Model 52, 1863 Remington Muzzle Loader, Austrian 1912 World War Relic. Carbines: Krag and 1873 Springfield. Revolvers: Colt's Cal. .45, Models 1873, 1909, 1917. Cap and Ball: Remington Starr and Colt's .44 cal., Ortiges .32 cal. Automatic. Swords, bayonets, World War Relics, Army equipment, Military and Rifle Books, Medals, etc. List stamps. Wm. F. Sattler, 514 Park Ave., Collingswood, N. J. 846

FOR SALE OR EXCHANGE—For a star-gauged Springfield or .250-3000 Bolt Action Savage, in gun crank condition. One .32-40 180 Stevens Pope No. 3 30-inch octagon barrel with complete set of reloading tools, peep and globe sights and tapped for scope blocks, in new condition inside and out. One 16 gauge double barrel, hammerless Fox, 28-inch barrels, full and cylinder bored, weight 6½ lbs., in the best of condition. I. W. Brown, RFD, Box 124, Chester, W. Va. 847

KRIEGHOFF MAUSER—.375 (Manlicher 9.5 mm.) cal., made to order unfired. 26 in., 8¼ lbs., American model. Ideal for bear. Price $100.00. 20 cartridges 271 S. P.-2637 vel., $2.00. W. L. Hunt, 5543 Carrollton Ave., Indianapolis, Indiana. 856

FOR SALE—Daven 3 stage resistance amplifier, with all resistances, brand new, in factory box; cost $20.00, sell for $10.00. Bristol one stage power amplifier, used, but condition perfect. Cost $22.50, sell for $12.00. Two stage amplifier, two Fada sockets and rheostats, two General Radio transformers, two Federal jacks, EBY posts, all perfect and mounted on 7 x 10 bakelite panel, partially wired, only $10.00. 3 Lecault Ultra-Vernier dials, not even taken out of original tissue paper; cost $6.75, sell three for $3.75. New Freshman low loss tuning unit; cost $6.00, sell $2.50. One Duplex and one Grosser No. 1 Loss condensers, both .00035 mfd., both unused, in factory boxes. Best condensers made, cost $9.00, sell $5.00, or $2.50 apiece. Bruno 3 circuit low-loss tuner, unused, in fac'y box, $2.50. Bruno R. F. tuning coil, unused, in fact'y box, $1.50. Pair Brandes phones, used, but O. K., $2.00. Fil-Ko outdoor lightning arrestor, unused, in factory box. Cost $1.50, sell for 75c. WD-11 tube and socket, used only month, $1.50. Keuffel & Esser engineers' slide rule, with leather case. Case slightly soiled, but rule unused; cost $8.50, sell $4.00. Revamped Baldwin loud talker unit for Victor machine, marvelously clear, $3. Will arrange exchanges. Will take .32 S.&W. regulation police 4½ inch bbl., blue, Winchester Model 53, .25-20, or light pair prism binoculars, preference in order named, must be new and perfect, for first three items or combinations of others. Also want .25 or .32 Colt Autos. Condition of material guaranteed as specified. Will ship prepaid on receipt of money order. First come first served. All mail answered. Robert Hertzberg, 894 Union Ave., The Bronx, New York City. 844

WANTED—.45-70 D. A. tool; also short range mold. W. L. Shaw, 16 Salmon St., Manchester, N. H. F

EXCHANGE—One scope, Winchester 5-A, post and lateral cross wire, W.O. mounts, 100 per cent factory condition; for Colt or Reising .22 Auto. Pistol in like condition. E. F. Grundeman, Appleton, Wis. 850

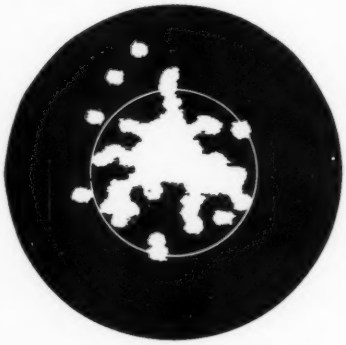
WANTED—Lee Enfield, short cal. .303, 10 shot, as issued by the N.R.A. W. C. Burnett, Corpus Christi, Texas. 849

FOR SALE—Brand new Ortiges Automatic .25 and .32 cal., $8.25. 1890 Winchester Repeater .22 long rifle Lyman peep, ivory front, Maxim Silencer, guaranteed like new, $25.00. No. 3 Corona with case like new, $20.00. No. 9 Oliver, like new, $17.50. A. E. Levriett, Box 3342, Station F, Jacksonville, Florida. 848

FOR SALE—Smith & Wesson .35 cal. Automatic Pistol, blued, $22.50. Colt Police Positive Target Revolver, $22.50. Smith & Wesson .32 cal. rim fire Tip Up Model 6-inch octagon barrel, square walnut grips, nickeled finish. Complete with plush lined case, $20.00. Colt Automatic Pistol .32 cal. $12.00. Savage Automatic Pistol .32 cal. $12.00. Colt .41 cal. rim fire Deringer nickeled finish, $8.50. Mannlicher 7.65 mm. Automatic Pistol 4½inch barrel blued finish, new, $25.00. English Webley Army Revolver cal. .455, blued finish, $21.00. Remington Rocket Pistol 10 ga., 9 inch barrel, brass frame, blued finish, $18.00. Savage .303 Featherweight Lever Action 20 inch barrel, $25.00. Winchester .38-55 Single Shot Target Rifle. Checkered Pistol Grip and Fore Arm. Wind gauge front sight. Micrometer rear sight on tang. Scheutzen Buttplate. Curly Circassian Walnut Stock. Barrel fine and outside finish perfect, $35.00. Colt New Service .44-40, 7½ inch barrel, blued finish, $2.50. Savage .22 Hi-Power Lever Action Take-Down 20 inch barrel, $45. W. S. Lutz, 8 South 18th St., Philadelphia, Penna. 857

SPORTING STOCKS for Springfield and Krag rifles, from 18.00 for the unfinished stock to $25.00 for the finished stock. These in black walnut, $35.00 to $49.00 for fancy figured domestic walnut. $50 to $60 for imported finished Circassian. Sell, one brand new perfected S. & W. target pistol with 10 inch barrel and Patridge sights, $24.00. One off hand Stevens pistol, 6 inches, new barrel, by Stevens, used action, brand new barrel, $9.00. 95 Model Winchester, 1906 cal. Lyman rear peep, gold bead front and folding open sight on barrel. Stock beautifully checkered. This gun is in brand new condition, spotless inside and out, $35.00 One brand new .250 bolt Savage, factory sights, $40.00. One used $250 bolt Savage, but in brand new condition, $35.00. One .300 bolt Savage in brand new condition, rubber recoil pad and gold bead front sight, $35.00. .250 lever action Savage, take down, gold bead open rear, new condition, spotless barrel, $35.00. One brand new S. & W. .38 Special, 6-inch barrel, factory grease, $25.00. .32-20 Colts, used condition, but fine shape, 6 inch barrel, $18.00. WANT—Springfield action and bolt, condition of barrel not important also good binoculars. R. D. Tait, Dunsmuir, California. 859

STOCK OF RAND-McNALLY & COMPANY ATLASES OF THE WORLD, at below cost. Latest Government census, County map of every State in the United States Double page maps of Europe, one as it was in 1914. Another as it was in 1920 and another showing the Battle Ground of Liberty, should be in every office and home. Regular $5.00 book, sent P. P. paid, $2.75. M. M. Conlon, 608 Old Nat'l Bank Bldg. Spokane, Washington. 868



Composite of 50 shots in championship match by John W. Gillies

THE BIG WINNER AT THE METROPOLITAN MATCHES

Smallest "possible" during matches by C. H. Johnson

Practically all of the honors at the recent Metropolitan Matches shot at 100 yards were won by shooters who used US .22 N.R.A. long rifle cartridges.

Not only were four of the first five places in the championship match won with these sure-shooting .22's but every one of the first five places in the preliminaries. Moreover, no less than 66 of the 88 "possibles" made during the four nights of shooting were shot with .22 N.R.A's.

Among the shooters of US .22 N.R.A. long-rifle cartridges who distinguished themselves are the following:

John W. Gillies who won second place in the championship, first place in the preliminaries and, with a score of 2981, the prize for the best thirty targets. It is a significant fact that Gillies' group, which gave him second place in the championship, was even smaller than the winner's group.

Charles H. Johnson who won the prize for the smallest "possible" with a group measuring but 1.14 inches across the centers of the widest shots. This group is the smallest ever made in the history of the Metropolitan organization which, according to Harry Pope, its president, has shot more than 13,000 targets.

W. J. Coons who won the prize for the first "possible" the first night of the matches.

J. M. Hilborn who won the prize for the first "possible" on both the second and the third night and who also had the second best thirty targets with a score of 2978 plus fifteen 98's. An added achievement of Hilborn's was the winning of third place in both the championship and the preliminaries.

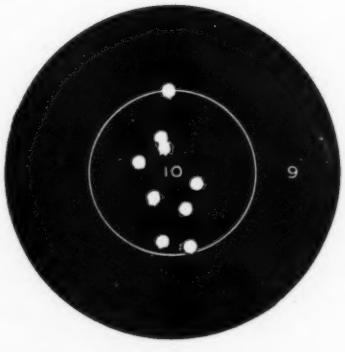
Edward Smelter who won third place in the preliminaries and fourth in the championship and who also had the third best thirty targets with a score of 2978 plus ten 98's.

C. S. Meyers, D. J. Murphy and L. B. Holler who won first, second and fourth places respectively for the best twenty scores among novices.

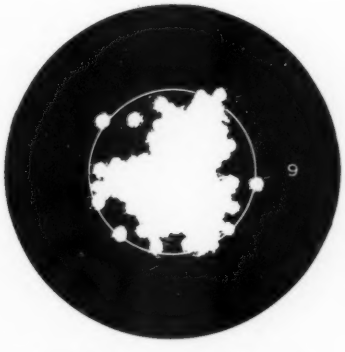
With US .22 N.R.A's, you "get 'em when you hold 'em," as the foregoing results prove.

UNITED STATES CARTRIDGE COMPANY

111 Broadway **New York, N. Y.**

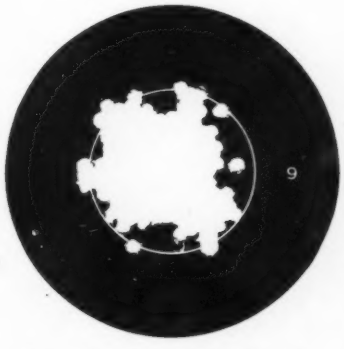


First "possible" among novices by C. S. Meyers



Composite of ten "possibles" by Edward Smelter

ALL TARGETS REDUCED ONE HALF



Composite of ten "possibles" by J. M. Hilborn

"I can do it!"

THE Battleship Maine had gone to glory and the Spanish American War was on. At Cuzzo, on the Cuban coast, a company of Marines lay on a ridge with their backs to the sea and their faces to the underbrush that covered the base of the hill and spurted jets of spiteful flame. There was no shelter. Under that brassy sky and through that billowing heat, the Spaniards, in vastly superior numbers, were creeping forward.

A signal man was called for, to communicate with the U.S.S. Dolphin. Firing ceased and in the silence Sgt. John Quick called out, "I can do it!"

Standing silhouetted against the burning sky, he calmly wig-wagged his message, with the Mauser bullets whispering songs of death in his ears.

The Dolphin answered with the roar of her broadside, shelling the Spaniards from their cover, and John Quick dropped to his face—unharmed.

DuPont Powder has been inseparably connected with the combat history of every organization in the Service. In 1802, practically all duPont Powder was made for military purposes. Today, 98% is produced for industrial uses.

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